

HUMAN-RELATIONS MANUAL FOR EXECUTIVES

BY

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FOREWORD

One can strongly suspect that a "Human-relations Manual for Executives" would have been received in this country a few decades ago with no little skepticism and probably with some scoffing. Employers in those days, if they admitted that there was a human-relations problem in industry, were inclined to look upon it with an indifferent eye. Their simple formula for dealing with workers was: pay them reasonably, work them a reasonable number of hours, and the human problem will solve itself.

We know that such a philosophy is archaic today. It fits neither the need nor the spirit of our times. Most of industrial America, at least, recognizes that employees want a great deal more than the right pay and reasonable hours. And in recent years, especially, management has made great strides toward obliterating the philosophy of strong-hand bossing and the abuses that accompanied it.

But friction threatens virtually every human group endeavor. It is not peculiar to the relationships of employers and employees alone. Boards of directors, social organizations, and union committees—all are equally susceptible to it. The problem is: how can this friction be avoided and

how can it be eased when it occurs? Or, more simply: how can *leadership* supplant *bossing*?

This book is a discriminating effort to assist the executive to answer that problem. Mr. Heyel has made a careful selection of material illustrating the principles that have resulted from studies of the human factor in industry. Certainly a knowledge of the application of these principles should constitute a part of every line executive's "professional" equipment.

ALVIN E. DODD,
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PREFACE

This book has to do with people. It gives quick pictures of what companies in all types of industry have done and are doing in handling the human problems that are involved in selecting people, training them, getting along with them, making them work efficiently, making their work as pleasant, safe, and healthful as possible, reprimanding them, praising them, paying them, firing them . . .

The theory around which the book has been written is this: a good idea that works in one line of endeavor can very often be applied in another, with the right kind of modification. This is especially true as one leaves the realm of technical processes and specific methods and enters that of human relationships. For while actions with respect to the former are usually dictated by the requirements of an individual company's products, processes, facilities, geographic location, available capital, and the like, policies with respect to the latter are increasingly guided by "standard practice" in industry in general, by awakening social consciousness on the part of management, and by legislation—in short, by forces directed from without rather than from within.

Many developments outside the individual manager's control are bringing this lesson home to him.

The principle of collective bargaining has definitely become part of our law, and the powers that can be exercised by a manager over the people who work for him are much more limited than they were in the early days of our country's industrial development. Workers are asserting that they have *rights* to their jobs—an idea that has taken root firmly now that jobs remain difficult to find—and this idea of an intangible sort of property right often conflicts with the manager's ingrained idea of the owner's real property right in the plant's buildings and equipment. The recent depressions have led many people to rely upon community help when they can no longer help themselves—and as a result the community has insisted that the managements of businesses in its midst must recognize social responsibilities in addition to their primary purpose, which is to make a profit.

“How will our employees feel about such and such a change?” “What will the people do whom we have to let go?” “Will making such and such a cost reduction mean the elimination of jobs?” “What will the community think?”—Questions such as these disturb management councils today and take up perhaps more time and energy than the problems of manufacture, sale, and distribution.

Especially in the realm of human relationships, then, will industry *A* profit if it takes advantage of every opportunity to get ideas from industry *B*, and company *A* if it looks to company *B*. And even in a single business, over-all efficiency will

increase if department *A* is given every opportunity to get ideas from department *B*. *Intellectual mobility* is today an indispensable management technique.

As one aid in this connection, the ideas in this book are offered. *It will be noticed that, although the ideas are important, they are essentially simple and can be applied without elaborate equipment installations or the services of highly specialized talent.* And every one of them has had to pass this test: *Can this idea be used in other types of business?*

In order to crowd as many ideas as possible into the book, the formula used was to have no more than one item on a single idea. Where it seemed helpful to cite additional examples of the same theme—to give more than one “angle” on a problem—they were added as supplementary notes. I have made every endeavor to keep my own comments and opinions in the notes, since my intention was to be reportorial rather than editorial.

Some of the items are perforce elementary. That is due to the fact that so many of the important factors in human relationships are simple—and for that reason often neglected. On the other hand, some of the items are certainly worth more elaboration. But this book must content itself with indicating the idea. It does not pretend to be a comprehensive textbook on methods or theory. Its whole purpose is to point out what other people have done and are doing; its sole intent is to stimulate thinking about people on the part of anyone with

supervisory responsibilities who may read it—from the foreman, whose sphere of authority is necessarily restricted, on up to the chairman of the board, who is presumably in a position to “do something,” if that appears desirable, about any one of the items.

If, in stimulating such thinking, this book leads the reader to seek other sources for more of the “how” as far as application to his own business is concerned, its primary purpose will have been achieved.

In connection with this “how,” most of the introductory notes to the sections indicate sources that have proved interesting, informative, or instructive to me. Recent developments and trends are also sketched in some of these notes.

A word as to the broad classifications into which the items are grouped: A more pedagogical approach, perhaps, would have been to divide the work into a greater number of component parts and to arrange them in a more strictly chronological sequence. However, the purpose was not to be pedantic, but to be practical. One may conceive this book to be read by people who are operating *going concerns*, and their most immediate problem today is usually not organizing a business or selecting workers (how often, after all, does the average executive or supervisor hire a new man?); it is rather the human, everyday problem of *getting along with people* in the organization as it is currently set up. That is why simple examples of everyday human relationships are grouped into the first

section and not buried in the middle of the book. However, an attempt was made to group the items within the classifications so that one leads to another in logical sequence.

One note of caution on the subject of classification in general: You can't divide up a dynamic complex into convenient parts and shut them up in insulated compartments for independent review; thus many items under, say, "Making Work Easier" must also be considered as helping toward the objective of "Making Work Safer," and also, perhaps, that of "Stimulating Best Performance." Historians run into this same problem when they attempt to recount the development of a single country—and they solve it none too successfully as far as the average schoolboy is concerned, for it is not until he grows up that he realizes with a start how much else was going on in the world while, say, Cornwallis was capitulating at Yorktown, and that at any given instant in history intrigues and stratagems in all parts of the world are all combined into one complex, interlocking whole. The classifications in this book are, then, artificial and overlapping, and are designed for transient convenience only. They are not meant to be insulated compartments.

The index at the end should help the reader to refer quickly to ideas on a given subject. "Application check points" are appended to each section, in the hope that they will make the items more useful in discussion groups, as well as assist in individual

study. These check questions were carefully phrased so that practically none can be answered by a simple "yes" or "no." Each should call for considered thought before reply.

Now as to the sources of these ideas—George Bernard Shaw on one occasion held that it really wasn't necessary for him to offer a bibliography, because he had made up the whole book in question out of his own head! I cannot, of course, make such a claim here. I have taken these ideas from every possible source that came to hand.

My work for some time has had to do with the formulation of the programs of the American Management Association conferences. These conferences have covered practically every phase of management—production, office, sales, finance, industrial relations, and the like—and I have, therefore, had the opportunity to listen to more papers and public discussions on management problems than has fallen to the lot of most people. "Postman holidays" have also occasioned attendance at meetings of numerous other management groups. Moreover, the arrangement of American Management Association programs has involved private group meetings with executives in a wide variety of industrial and commercial enterprises.

All of this has exposed me to the thinking of leaders in almost every type of business endeavor. Not to try to save as many as possible of the ideas thus stumbled upon would have been sheer profligacy. I became an inveterate note taker and accumulated many an old envelope and checkbook stub for my reference files.

American Management Association *Proceedings* and other AMA publications have, of course, been at my disposal, as well as the very complete AMA reference files on all management topics. In this connection I make here a wholly inadequate acknowledgment of the interest and assistance of Miss Irma Muller, AMA librarian, and Miss Leona Powell, manager, AMA Research and Information Division, who very kindly read the manuscript.

Another source has been the business press, and many of the items are based on material reported in such publications as *American Business*, *Factory Management and Maintenance*, *Dun's Review*, and *Business Week*. (For current human-relations experience stories, mostly dealing with office, selling, and other nonproduction employees, the "Human Relation in Business" section of *American Business*, begun in its January, 1939, issue, is recommended.)

No company names are given—although in most instances the industry is indicated—because in following my formula that "the idea's the thing" I often took the liberty of changing matters about a bit in order to make a point. Also, in most cases where an item is taken from a publication (often from an article not primarily on that particular subject), an idea has been divorced from its context, and using individual names would have meant elaborate qualifications and specific arrangements to quote.

However, many of the items do bear references as to source. Two considerations dictated such references: (1) where I believed the reader would profit by pursuing the matter further; and (2) where an obvious injustice would have been done by not giving proper

credit, as where statistical or other research data are quoted, or where something is taken verbatim.

References to books that have been especially useful or inspirational to me in preparing this collection are given in the notes accompanying various items and in the introductory notes. I have in most instances attempted to give the reader some idea of the book, in addition to the reference, so that he may judge whether it would be helpful for him to read further in it. There are, of course, in the field countless worth-while books to which I have not alluded. I have mentioned only those on which I have been taking notes since the idea of this collection first occurred to me.

CARL HEYEL.

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HUMAN-RELATIONS MANUAL FOR EXECUTIVES

CHAPTER I

GETTING ALONG WITH PEOPLE

Amid the larger issues of technical change, cyclical swings, labor violence, perils of war, and threats to security of every sort, the worker's everyday, petty irritations and unarticulated grievances against management have been greatly multiplied. This means that at a time when a manager's outlook must be tremendously broadened, he must also re-educate himself in the homely principles of dealing with the men and women under him—remembering to treat them not as numbers on time cards or units on a pay roll, but as living, breathing people with aspirations that should be respected, feelings that can be deeply hurt, and human dignity that no man has a right to defile.

The manager must relearn some of the things his predecessors of two generations ago could apply unconsciously, because their enterprises were smaller and they themselves were closer to their people. He must re-acquire arts of kindness and persuasion, the real tools of leadership.

Many of these arts are illustrated in the examples in this section.

Early in 1938 there appeared a book that should be read by every responsible executive, for acceptance of the common-sense principles there clearly set forth would do more than anything else to re-establish industrial peace. The book is *What People Want from Business*, by J. David Houser (McGraw, New York). Reference to the methods Mr. Houser sets forth for determining employee attitudes will be found in my notes on "Improving Management-worker Understanding," page 223. Here I want to pay tribute to the compelling sincerity and logic with which the author urges management to recognize the fundamental human feelings of people at work. Let me quote a paragraph which seems to me to epitomize Mr. Houser's philosophy:

"If it (management) would but accept the thesis, so amply demonstrated, that men hunger above all for elementary human dignity and that the cardinal sin of industrial relations is suppression and compulsory insignificance, if it would put the positive word *consideration* higher in its mind than pay or promotion or working conditions—then it would have a reliable key to interpreting this rebellion of the workers which now bewilders it so sorely; then it could plan the march to achievement which is its real desire."

Professor Erwin H. Schell, in his *Technique of Executive Control* (McGraw, New York, 1934), underscored the importance of the human-relations problem when he said, "It is plain to see that labor management is [the executives'] great responsibility, and that

their success or failure in accomplishing the work which they are to do will not be measured primarily in terms of their technical knowledge, nor in terms of their technical skill, but rather in terms of their effectiveness in organizing the will of the employees—in handling men and women.”

Professor Schell's book is excellent for discussion groups. It presents human problems that arise every day in every type of business, and by raising pointed questions in connection with each one, helps the reader think through to his own solution.

The Art of Leadership, by Ordway Tead (Whittlesey House, McGraw, New York, 1935), is an excellent, logical demonstration of why it is better to *lead* than to *boss*. The vocabulary of this book is perhaps too advanced for most departmental or foremen discussion groups, but the book can certainly be read with profit by every group-discussion leader. It is full of illuminating little examples that can be translated into the experiences of the group.

"Rule Six"

"Excuse me a minute," said the superintendent to his visitor. "One of my managers wants to see me."

The manager was shown in. He was surprisingly young for his responsibilities—and then the visitor remembered that he had heard about that up-and-coming young engineer his friend had on his staff.

"About that material mix-up, Jim," the superintendent greeted the young man, "I've talked to some of the other boys, and I've come to this decision—*You forgot Rule Six!*"

The expression on the young engineer's face slowly changed from an angry scowl to a grin. "Why—I hadn't looked at it that way before, sir. But I guess you're right, at that!"

"O. K.," smiled the superintendent. "Let's forget about it." And the young man took his leave.

"If you don't mind my asking," said the visitor, "what do you mean by this mysterious Rule Six? That fellow changed from storm warnings to fair weather the moment you mentioned it."

"Oh, we have a rule around here that, for some reason or other, has come to be known as Rule Six," was the reply. "I find it's the answer to a good bit of difficulties in human relationships. Rule Six is simply this—*Don't take yourself too seriously!*"

They Must Understand People

Top management in a rolling mill famous for the way in which it gets along with its labor insists

upon an understanding of human beings on the part of its works managers. As a result of this policy, several of its ranking executives have had to take special training in personnel administration before being assigned to manufacturing responsibilities.

How About the "Unseen Followers"?

"Everyone," says Ordway Tead in *The Art of Leadership*, "has noted instances of the executive leader who will buy ice cream for his office staff on a hot afternoon and send them home at four o'clock to escape the heat, but who never gives a thought to the workers in his foundry or other workplaces where the processes of manufacture join with the weather to create a temperature of 115 degrees in the shade. Such regard for the seen followers to the neglect of those who are out of sight is common."

Get Rid of the Double Standard!—In this connection, I maintain that there is a great moral lesson in the advertisements we have been seeing of a paper-towel manufacturer. "Get rid of the double standard in industry," he urges, "by providing the same sanitary facilities for the plant that you do for the office." Often I've gone on an inspection tour through a big plant, and, telling the executive guiding me about that I'd like to stop in at the next washroom, received the reply, "Oh, if you're in no great rush, maybe you'd better wait until we get back to the office. These places aren't too convenient . . ." This usually

meant, I'm sure, that the facilities in the plant weren't just what the executive wanted to show "company," even though they were good enough for the men.

Vacations with pay for factory employees as well as for office employees are another laudable means of eliminating distinctions. And maybe the Fair Labor Standards Act will also have a salutary effect. Once I worked in the shops of a streetcar builder. I didn't mind getting up early in the morning for the hour's walk to the shop, which began operations at seven. But I could never quite repress a smarting feeling of injustice when, after threading pipes for an hour, I looked up and saw the fellow who chased factory forms amble into the office, which opened at eight. You can't escape the fact that it isn't a man's actual condition, miserable as it may be, that grinds unhappiness into him; it's the way his situation stacks up with some other fellow's.

Please

"The fellow who takes care of the lawn at the station plaza in my town helps me get along with the people at my plant," remarked an operating executive.

"How so?" asked his luncheon companion.

"For a long time," was the reply, "there were a lot of signs on that lawn reading **KEEP OFF THE GRASS!** But since this fellow has been on the job, those signs have all disappeared, and dignified little notices have taken their place, bearing the simple word **PLEASE.**"

"Ever since he made that change, I've been watching myself to see how often I preface a request

to a subordinate with that important word. I was chagrined at the start to see that I really had not been in the habit of saying 'please' automatically.

"Incidentally, the grass at the station plaza is much better this year!"

"Running the Business from under Your Hat"

"There is considerable reserve on the part of the junior executive when he is in the boss's office," said an executive. "My experience shows that the juniors will talk much more freely with me when they are in their own surroundings than when I call them in to see me.

"Top management groups should make it a habit to get out from behind their desks and from behind closed doors, and into the offices of their juniors.

"If we would all make up our minds to run our businesses more from under our hats than from the back of our desks, we would know our people better and do a better job."

Overcome the Aura of Authority.—One executive has made it a rule never to talk across his desk to an employee who is unaccustomed to being in his office. He feels that the desk forms a barrier to free discussion. "It symbolizes authority," he says, "and creates a restraining atmosphere."

Executives Should Be Seen (as Well as Heard from)

There is a carpet-manufacturing company in Philadelphia that has grown from a relatively small

concern to one of the largest and most important in the industry, in a comparatively short time.

In the old days, the head of the company (who is still president today) knew, at least by name, everyone who worked for him, and took an interest in the personal problems of a great many of his workers.

Today he can no longer know his people so well—and this he regrets as one price he has had to pay for his company's huge success. However, he does what he considers the next best thing. He makes it a rule to walk in a leisurely way through some portion of the plant every day. Occasionally he can still spend a few minutes with an old-timer, but since he cannot talk to everyone, he believes it highly important that he shall be at least *seen* frequently by as many of his workers as possible. That is his way of making himself a real person to them, instead of being some anonymous "big boss" out in the executive offices.

He Got 'em off the Backs of their Laps

The general superintendent of an automobile company "pulled a fast one" on his factory managers. He ordered all chairs taken out of factory offices for a week, to keep his bosses on their feet, talking to the men down the line.

"Too many of you fellows are developing into desk men," he said. That tendency had, of course, grown with the rapid growth of the company. "From now on," he ordered, "I want everyone with

a supervisory job to keep circulating. How many men in this plant do you know by their first names—and by their nicknames?"

How to Make Newcomers Feel at Home

In a leading New York department store, the training department has set up what it calls a Reception Committee, responsible for making a new employee feel at home during his first week at the store.

Someone from this committee takes the newcomer out to lunch the first day and is responsible for introducing him to his fellow workers and explaining routine methods.

How a Spice Company Handles This Same Problem.—A Baltimore spice company has developed a sponsorship plan, under which junior executives take new men under their wing, to instill a friendly, co-operative attitude toward the company and its management policies. In every case, however, the junior executive's responsibility is strictly one of helping the newcomer to get along with his fellow workers and with management—he is never permitted to advise him on problems of departmental operations.

It's hard for newcomers to remember names, and so one office manager is careful to draw a rough diagram for every new employee, showing the location of the various people to whom he has been introduced. Thus, if a name slips his mind, he needn't feel embarrassed—a glance at the diagram brings it back.

Getting Someone Told

"If I have to point out a fault or a mistake to a man," said one executive, "I'm always careful to lead off with a remark that shows appreciation for some of his good points. I've found it helps a lot to pave the way to a reproof by some such statement as 'This job requires special care—that's why I gave it to you, as one of our best men on this type of work—but here's a slip-up that we should be especially careful to watch out for in the future . . .'"

Tell 'em When They're Happy.—"The best way to make a good man better," said a general foreman, "is to point out his little weaknesses and faults at the time you give him a raise. Boy, he's certainly in a receptive frame of mind then! The spurt that the raise gives to his ambition will make him pay double attention to additional ways to improve himself—and he'll think you're a swell guy for telling him."

Cardinal Sin.—"Be sure to get into a footnote on this topic," said an executive with whom I discussed this item, "the cardinal sin of 'getting someone told'—*bawling people out in the presence of others*. Don't worry if readers complain that you're parading the obvious. It's worth repeating every day!"

How an Ancient Egyptian Handled Grievances

A speaker at a conference dedicated to increasing supervisory effectiveness made his most forceful point by quoting from the writings of Ptah-Hotep (who lived in Egypt 5,000 years ago) as follows:

"If you are in the position of one to whom petitions are made, be courteous and listen to the petitioner's story. Do not stop his words until he has poured out all that is in his heart and has said all that he came to say. A man with a grievance loves the official who will accept what he states and let him talk out his troubles fully. A kind word will illuminate his heart, but if an official stops the flow of his words, people will say, 'Why should that fellow have the power to behave in this way?'"

Smile.—One executive says that he never feels the time is just right to discuss the details of a grievance with an employee until, by some means, he has won a smile from him. He claims that a smile is possible only after a person has regained a reasonably normal state of mind.

An "Honor Council" to Settle Differences

Under the apprenticeship system in force at a large machine plant, an Honor Council settles differences of opinion. This council consists of seven boys elected by the whole school. It decides upon disciplinary action, metes out punishment when it is needed, and has even recommended discharge.

No foreman can discharge an apprentice, although he can request that an apprentice with whom he cannot get along be transferred to another department.

Complexes—We All Have 'em

Here is a point made by a personnel director at a convention gathered to discuss industrial-relations problems:

"Every psychoanalyst must first find out his own complexes before he can really hope to help his patients. That's something all of us personnel men should take to heart.

"For example, I recently sat down and drew up a list of my prejudices about people. I asked myself: Am I affected by certain kinds of features, dress, and voice? Am I too ready to jump to conclusions about somebody simply on the strength of a fixed idea I might have as to his or her 'type,' without really basing my opinion on observed facts? Do I instinctively dislike some people, and does that habit affect my reaction to a grievance problem? And—very important—how do my personal likes and dislikes affect my interviewing?"

Speaking of Complexes.—"Boss complex," said a writer in *Forbes* (Robert D. Mansfield, "That Boss Complex," Aug. 15, 1937), "makes mice out of men, liars out of the honest, cowards out of the most courageous, and shifty-eyed morons out of straightforward, intelligent citizens." A boss complex is shown by nervousness on the part of the employee when the boss is around. He forgets obvious answers to simple questions, cannot locate familiar objects, and explains mistakes that no one has even noticed.

In many cases a boss complex grows up in a new employee because he has not been given proper training for his job. He goes about making mistakes, offending his boss, "horning in" on the other fellow's responsibilities, or not accepting his own. And who can blame him?

Many times the fault is with the boss who intimidates an employee because he does not feel sure of himself.

Moral: Don't judge too hastily that a worker is "dumb." Maybe he's suffering from boss complex and can be straightened out in time. How can you make him feel that his success and advancement are important to you as well as to him, that his work is valuable, and that he is a necessary cog in the machine?

What Is Meant by the Open Mind?

At a meeting of key men called by the chief executive of a company to consider a certain course of action, one member of the group, of relatively minor position, found himself in complete disagreement with the Chief on an important point. It was not merely a matter of differing as to how a given decision was to be carried out. It was a complete difference on fundamental policy.

The objector courteously voiced his opinion—and even the others in the group were nervous at the "youngster's" temerity.

"I don't agree with you at all," said the Chief. "But," he added, "keep bringing it up from time to time. *One of these days you may convince me!*"

Occupational Disease of Executives.—There is an insidious occupational disease to which executives are very prone. *They forget how to listen.* Tolstoy describes this Napoleonic attitude in *War and Peace*. The Russian envoy, Balashov, has an audience at Vilna with Napoleon, who is on his way to Moscow, and Napoleon is speaking:

"I am told you have concluded a peace with the Turks?"

"Balashov bent his head affirmatively. 'Peace has been concluded. . . . ' he began. But Napoleon did not allow him to speak. He clearly did not wish anyone to speak but himself, and he went on with the unrestrained volubility and irritability to which people spoilt by success are so prone."

"Modest Diffidence."—In this connection, I should like to suggest that most executives can turn to good use the following self-admonition set down by Benjamin Franklin in his *Autobiography*: "I continued the habit of expressing myself in terms of modest diffidence; never using, when I advanced anything that may possibly be disputed, the words *certainly, undoubtedly*, or any others that give the air of positiveness to an opinion; but rather say, I conceive or apprehend a thing to be so and so; it appears to me, or *I should think it so and so*, for such and such reasons; or *I imagine it to be so*; or *it is so, if I am not mistaken*. This habit, I believe, has been of great advantage to me when I have had occasion to inculcate my opinions, and persuade men into measures that I have been from time to time engaged in promoting; and, as the chief ends of conversation are to *inform* or to be *informed*, to *please*, or to *persuade*, I wish wellmeaning, sensible men would not lessen their power of doing good by a positive, assuming manner, that seldom fails to disgust, tends to create opposition, and to defeat every one of those purposes for which speech was given to us, to wit, giving or receiving information or pleasure. For, if you would inform, a positive and dogmatical

manner in advancing your sentiments may provoke contradiction and prevent a candid attention."

Credit Where Credit Is Due

An engineer, highly successful in introducing motion and time study in hundreds of plants, noted that it is usually the practice of time-study departments to justify their existence by elaborate reports showing.

It has been his experience that, where management requires such reports, it pays handsomely to give as much credit for the savings as possible to the foreman who co-operated on the job. He puts it this way: "Reporting to the management that Bill Jones in the screw-machine department has discovered a way to reduce greatly the costs of handling rod stock might perhaps be giving Bill more credit than he really deserves, but it is surprising to see how much co-operation the engineers obtain the next time they enter his department."

Anyone interested broadly in industrial supervision—in getting along with people and getting them to work efficiently—will find helpful the first five chapters of Allen H. Mogensen's *Common Sense Applied to Motion and Time Study* (McGraw, 1932).

A Practical Procedure.—In this matter of giving credit, one top executive sees to it that the following principle is observed in his organization whenever possible: When a foreman or someone else in a supervisory position has occasion to tell his own superior

about any constructive suggestion that someone under him has offered, he should do so within the hearing of the one who made the original suggestion, if that is at all possible. Thus, every employee knows there can be no doubt that credit for the idea will be correctly placed.

Don't.—And here's a point one superintendent drives home to his department heads: *Don't be curt and unappreciative when an employee makes a suggestion that is obviously impractical.* Show him you're glad he's thinking, and let him see why his idea won't work at this particular time.

Query.—Did you ever consider the value of trying, somehow, to use some adaptation of a subordinate's suggestion, primarily as a way to encourage him? Merely in order to avoid the reputation of never welcoming a suggestion, it often is well worth while to consider how an idea *can* be used, rather than why it *cannot*.

Tact with a Looking Glass

An office manager became concerned over the tendency of certain girls who were under his supervision to be careless about their appearance. Some of them wore spotty dresses, others were prone to walk about with their slips showing or looking untidy in one way or another.

After thinking some time about the advisability of calling these points to the attention of the individuals concerned, or of issuing an "impersonal"

memo on the subject of personal neatness, he decided to try something else first.

He simply had a full-length mirror installed in the girls' dressing room. There was an immediate improvement in the looks of all concerned.

One Way to Cure Late-comers

An office manager didn't like the idea of fining late-arriving workers, or other negative ways to keep attendance regular. He claimed that too often their results were made worthless because employees became peevish and irritated. So he set about the job on a *positive* basis.

He singled out for special congratulation and praise one employee who was never late. He organized employees by departments to compete with each other in attendance records. And he told his department heads to make habitual late-comers realize their shortcomings by means of good-humored "wise-cracks" instead of criticisms.

"P.F."

For many years a well-known advertising and sales executive has made the letters "P.F." one of his chief slogans.

P.F. stands for "praise fearlessly." This executive is always ready to praise those under him when praise is deserved. He believes that the man who is afraid to give recognition to associates or people under his supervision fears that someone may

advance at his expense and is suffering from an inferiority complex.

Needless to say, the "P.F." policy wins him the full loyalty and cooperation of those working with him.

Encourage Verbally.—When my mother prepared an especially popular dish for dinner, she would look expectantly at my father, munching happily away, and would say, "Well, *how do you like it?*" He would invariably eat in silence for a moment or two longer, and then say, succinctly, "*If I don't say anything, you know it's all right!*" He was teasing her, of course—but that system, without the joking, is unfortunately practiced all too frequently in work relationships.

Houser tells of this interview with a minor executive in a marking department.

"Does a marker ever know the result of her work?"

"Well, no. Not exactly. She just does it and it's usually O.K."

"What standards have you set for 'O.K.' or better work?"

"It has to be done right and fast enough to keep up."

"How fast is that?"

"Oh, it varies with the volume of work."

"I see. And how do employees know how they stand?"

"Well, if they don't hear from me, they know it's all right."

Educators report that evidence from tests with large numbers of children in school shows that performance is very much higher where encouragement and praise are freely given than where nothing is said.

These Salesmen Meet the Boys in the Plant

The president of a storage-battery company sees to it that as many of his salesmen as possible become personally acquainted with as many of the plant foremen as possible. He frequently brings groups of his salesmen and foremen together, to talk over common problems.

In this connection, he has asked that his salesmen make it a point to give the factory not only complaints, but compliments as well. Thus, when a particular customer is especially pleased with results, Joe and Ed and Harry back in the plant get the story direct from Jim on the firing line.

"Let Them See Themselves"

According to one very successful plant-methods man, it's a big mistake to take only detail pictures of some job or improved method—shots that show only the operator's hands, and concentrate entirely on the work. "Workers like to be considered partners in an investigation of their own operations, and therefore want to see themselves in such pictures," he claims. "Exhibition of complete motion pictures or stills showing operators as well as methods and equipment arouses many times the interest created by detail pictures alone."

"I Just Work Here"

"I just work here, like everyone else," said the senior member and operating head of a steamship company with headquarters in New York. This remark was in answer to a query about the firm's

practice of doing without any titles whatsoever in the shore end of the business (the practice is not followed aboard ship). The no-title idea is part of the original partners' attempt to put into practical operation their philosophy of personal independence and willingness to work on a basis of co-operation without regard for artificial rank.

After Business Hours.—A good point to remember about company-sponsored recreational activities is that every man entering them must leave his official position behind him. Thus, the band director's boss may play the drum in the band, the personnel manager may rate the position of bat boy on the company baseball team, and the plant superintendent himself may be just another member of the rifle club.

Those "Extras" Count

The Romans had a phrase for it—*bread and circuses*. The *circuses* represented the "extras" needed to keep the people contented. A little of that idea can be translated into modern industrial practice with good results. Consideration can be shown in relatively simple things that don't smack of paternalism.

Here are a few examples of extras that helped to make people glad they were working for their particular company:

Plant Shopping.—A company making electrical equipment and appliances set up an attractive showcase in every one of its plants, where the home appliances manufactured in its various divisions are

displayed, with prices marked at cost. This greatly facilitates "shopping" by employees when they want to buy some of the company's products for their own homes.

Garden Club.—Twenty years ago the employees of an Eastern machine works organized a garden club, and it has been in operation ever since. Management realized the benefits of this activity and allotted a number of parcels of land in the outskirts of town to this use. On the average, more than 200 gardens are assigned each year. The company sees to plowing and harrowing and furnishes fertilizer free. Plots are 50 by 100 feet. When the crops are harvested, an "agricultural exhibit" is held and prizes are awarded.

Night Play.—An Eastern glass company lighted its athletic field for after-dark use. This move proved so popular among employees whose playing time was thus extended that the company supplemented the night-use field with two illuminated tennis courts.

Parking Space.—A factory in New Jersey assigns a definite, numbered position in its parking lot to every employee. This extension of "good housekeeping" to the parking yard economizes space, prevents confusion, and saves a lot of time in the morning and at night.

Boston Tea Party.—A tea company in Boston serves tea to its office employees in midafternoon, and anyone who drops in at that time is welcome to a cup . . . A New York firm sets aside Tuesday afternoons

for good-will visits by wives, relatives, and girl friends of employees.

Sports for Learners.—In a Massachusetts shipbuilding company, a well-organized sports program is a regular feature of the apprenticeship program. Management's point is that if public educators feel sports add to the development of their charges, private educators should profit by their experience.

APPLICATION CHECK POINTS

1. What would you consider examples of "taking yourself too seriously?"
2. What organized effort can be made in your company to give higher executives a better understanding of people?
3. What unfair distinctions do you believe are made in your organization between various employee groups? How do you think these can be most effectively ironed out?
4. Roughly, what percentage of your orders to subordinates do you preface by "please" or its equivalent?
5. What procedures would you list as useful in putting subordinates at their ease when talking to you?
6. How do you believe the top executives of your organization could humanize themselves more to their employees?
7. How many of the men in your immediate organization do you know by name? By nickname?

8. When did you last go out of your way to fall in step with a subordinate leaving the plant, in order to chat about things other than work?

9. What hobbies of the men under you are you familiar with?

10. How can your department help put newcomers at their ease?

11. What conscious procedure have you set up for reprimanding subordinates? When was the last time you "bawled out" somebody in the presence of others?

12. What technique have you developed for talking to a subordinate with a grievance? Can you outline one or two recent examples of good handling by yourself? Of poor handling?

13. What types of prejudice do you think may have been influencing your handling of applicants and subordinates?

14. What was your reaction the last time a subordinate disagreed with one of your opinions or orders? Would you be able to cite instances to prove an assertion that you don't resent criticism?

15. Who gets the credit when one of your subordinates offers an exceptionally worth-while idea? How do you go about rejecting an idea without hurting a subordinate's feelings?

16. Can you cite an instance in which you told an employee about a personal fault tactfully? Not tactfully? Have you evolved a conscious procedure to meet this situation?

17. What would you judge the rough ratio to be between the number of times you "call down" someone

and praise someone over a given period? When did you last go out of your way to let some subordinate know you thought his work worth while—even though no specific occasion presented itself?

18. How can your rank-and-file workers be made to feel themselves partners in the planning of their work?

19. How important are titles in the day-by-day relationships in your organization?

20. Can you think of some little “extras” that would make workers in your organization feel more glad and proud that they are working where they are?

CHAPTER II

DEVELOPING THE WORKING FORCE

In 1911 Frederick W. Taylor wrote *The Principles of Scientific Management* (Harper & Brothers, New York), in which he summed up the fundamentals of the management movement he had inaugurated in the eighties, and to which he had devoted his life. There he insisted that one of the important "new duties" which managers had to undertake was that "they scientifically select and then train, teach, and develop the workman, whereas in the past he chose his own work and then trained himself as best he could." This, he said, involved "new and heavy burdens" for the managers.

That management has assumed this burden is demonstrated by the development of personnel administration in this country in the quarter century since Taylor's death. Personnel responsibility has been raised to top-management status, and psychology has won for itself a place high in business councils. Problems of selection and training were never more clearly recognized, more systematically attacked, than they are today. For, as the director of industrial relations of a prominent corporation recently put it, "if money, materials, and equipment are available to all of my competitors on equal terms, then the greatest source of advan-

tage that I have is in a more effective use of my human resources."

In this section I have tried to bring together practical examples of what companies in all types of industries are doing about the *prerequisites* of this "more effective use"—practices and experiences that have to do with selection, organizing, and training. Examples that have to do specifically with problems of developing supervision I have reserved for the following section.

In a book like this, devoted to "case material," general discussion should, admittedly, be kept to a minimum. However, I want to take advantage of this sectional introduction to add a few notes on *How Many Shall Report to the Boss?* Many observers believe that there is a tendency for most large organizations—business, government, philanthropic—to allow executives direct supervision over too many people. Major L. Urwick, a noted British industrial consultant who has given a great deal of study of problems of organization, says (after making qualifications for such factors as area involved in supervision): "The ideal number of subordinates for all superior authorities appears to be four. At the lowest level of organization, where what is delegated is responsibility for the performance of specific tasks and not for the supervision of others, the number may be eight or twelve. The number of levels in any organization should be a minimum sufficient to permit of this distribution."

Writing on the subject of developing staff assistants to co-ordinate the work of various departments in

large organizations, Henry E. and M. C. H. Niles offer the following table in the August, 1938, issue of *Personnel*, (American Management Association, New York).

Level	Typical position	Number of persons on this level	Each of whom supervises directly	Total supervised directly by this level	Total down to and including this level
1	President.....	1	5	5	1
2	Vice-president.....	5	5	25	6
3	Junior officer.....	25	5	125	31
4	Department head.....	125	5	625	156
5	Division head.....	625	5	3,125	781
6	Section head.....	3,125	10	31,250	3,906
7	Clerks and workmen.....	31,250	None	None	35,156

"It is clear," they point out, "that a small number of ranks can adequately direct even a large organization."

A sales executive, speaking at a conference on sales management, complained that the "noncommissioned officers in the sales army" are all too few. He believes that whereas problems of foremanship and direct supervision have received great emphasis in production management, they have been neglected in sales management, with the result that, by and large, sales managers are directly responsible for far too many men. "The gap between the general and the private is too broad," is the way he put it. There should, he believes, be more "sales foremen."

When Is an Executive Too Old for His Job?

A group of businessmen was discussing the problem of when an executive should be replaced. Tests by age, physical vitality, length of service, and the like were suggested. But everyone shouted agreement when one man suggested this test: "When he knows all the reasons why no further improvement can be made."

Neophobia.—"The progress of mankind has been in all ages greatly retarded and at times altogether prevented by a curious sort of disease of the mind technically known as neophobia. In a case of hydrophobia, the mere sight of water is said to arouse disgust, fear, and even furious anger. In a case of neophobia, the symptoms are similar but the cause is different. The neophobic patient shows marked aversion and resentment at the sight of something new. The disease is very prevalent, and there are no drugs known that will cure it, except poisons. We all seem to carry about the germ of it, for any of us is liable to manifest mild symptoms, and in certain countries and certain centuries it has been epidemic."
—*Chats on Science*, by E. E. Slosson (Appleton-Century, New York, 1924).

Jobs Expand and Contract with Men

One executive is fond of repeating that a job is more than a square marked off on an organization chart—and more than a dictionary definition. He claims that a job "expands" and "contracts" with the individual holding it.

To prove his point he tells of a comptroller who was given the duties of chief accounting officer. After a few months, the president who hired him noticed that many little matters which had taken his time before were no longer coming to his attention. He began to receive penciled notes saying, "We had a little meeting on such and such a matter, and decided so and so. If agreeable to you, we'll go ahead," signed with the initials of the comptroller. Larger and larger questions were handled, to the increasing relief and satisfaction of the president.

Soon the president made official what superior ability had already made a fact. He changed the comptroller's title to assistant general manager. The man had actually made himself that, while the organization chart had shown him to be comptroller, and had described his duties as those of chief accounting officer.

A new man was given the title of comptroller. Month by month the job shrank—the president could almost see the shrinkage take place. Others were making the decisions that the comptroller should have made. Finally, it was necessary to get a new comptroller.

The new man slowly and carefully expanded the shrunken job step by step, and soon assumed a respected place in the councils of the company.

The president sums up the experience in this way: "If I had insisted on rigid adherence to an organization chart at any of the three major stages

of the change, I should have (1) never discovered an excellent assistant; (2) suffered a serious partial breakdown in my accounting division; and (3) prevented the final development of a capable accounting officer."

This example is cited by Thomas Roy Jones in an article, "Dog Fights and Organization Charts," in *Dun's Review* for December, 1938. Says Mr. Jones: "Every business should have an organization chart. That can be taken as an axiom . . . But human abilities change through inherent adaptability, development through experience, health changes, aging, or other causes. Conditions of market, customer demands, public thought, technical processes, producing equipment, and other variables change, and with them change the requirements for combinations of ability. These changes take place faster than is commonly realized. Organization, therefore, is a continuous process. An executive who does not reconsider his organization structure every six months in the light of the human and other changes is not covering his job."

More than an Army of Unimaginative Employees Is Needed.—At the Seventh International Management Congress, held at Washington in December, 1938, Karl T. Compton, President of the Massachusetts Institute of Technology, said: "Wise management involves the minimum of control and supervision consistent with reasonably smooth, co-ordinated, and properly oriented operation—as individuals or groups grow in their ability to accept responsibility, the con-

trols on them are relaxed in order that they may accept and discharge responsibility . . . The great desire of business now is to develop personnel who can wisely discharge responsibility and take initiative, rather than to depend upon an army of obedient, hard-working, but unimaginative employees taking orders from the boss."

Rating Executives

One unit in the steel industry has inaugurated a "Plan for inventory and appraisal of executive personnel." It hopes to use it in "an orderly and methodical system for the discovery, development, and assignment of executive personnel."

Roughly, the group under consideration is the executive force compensated from about \$4,000 a year up.

A series of forms has been devised setting forth in detail the executive's qualifications for his present job, performance of specific duties on the job, and qualifications for advancement. These are appraised on a point basis by superiors and associates. The usual technique is used of assigning weights to qualifications needed on a particular job and then rating the individual by points on each qualification. By combining the weight with the individual rating, a point total is arrived at.

Of course, many imponderables are rated in this system, and so the scheme will be studied carefully in operation and adjusted to experience. Another problem, of course, is that of rating the raters.

Judgments will be checked by having several raters compare notes. Furthermore, periodic review of ratings will provide credit for improvement.

The rating of executives is the most recent development in the philosophy of merit rating. The "imponderables" alluded to above make the problem extremely difficult—and, some maintain, impossible of solution.

In September, 1936, Edward R. Stettinius, Jr., now Chairman of the United States Steel Corporation, delivered an address before the Harvard Graduate School of Business Administration on "The Selection and Development of Executives in American Industry," in which he outlined the problem and indicated steps toward its solution. Harvard has published this paper, together with a rating form proposed by Mr. Stettinius. The form is illustrative only, and does not purport to represent practice at U. S. Steel.

Further information on this development was reported in *Business Week* for Mar. 4, 1939.

Specifications for Tomorrow's "Top Men"

"Yes, I believe in 'job specifications' for selecting men to fill routine, repetitive, standardized jobs," remarked the personnel director of a public utility. "However, when it comes to employing someone whom you hope some day to turn into a far-seeing executive, I insist that you must work to *man specifications*." He listed six of these:

1. *Intellectual curiosity*.—Not casual or idle curiosity, but curiosity which leads to continued and

orderly effort to determine the why of things and events.

2. *Ability to study.*

3. *Habit of study.*—Four years of college often are not enough to make study a habit.

4. *Ability to learn from men.*

5. *Ability to co-operate with men.*

6. *The promise of ability to lead and influence men.*

Check Your Archives.—"Are you making use of your accumulated application blanks to determine what factors seem important to success in your type of business?" A trade association executive asked this question of a group discussing characteristics to look for in hiring salesmen. He pointed out that most companies now have been accumulating fairly comprehensive application blanks for many years. Why not go to the files and pick out the pieces of paper that give a picture of some of your successful men as they looked to you 5, 10, 15 years ago? he asked. Such an analysis might bring out surprising facts about age, education, previous experience, "contacts," and the like.

Raw Material for Future Executives

A chemical company uses the following plan to insure a ready supply of executive timber.

Every spring the personnel director and his assistants select a number of new graduates from the better colleges and universities. The successful candidates spend a month in the company's New

York office, studying products, policies, methods of manufacture, merchandising, and advertising.

They are then sent on the road for a good, hard year's work, calling on the trade, placing advertising, and conducting sampling campaigns. During this time they are given concentrated training in business writing.

The next hurdle is a course in stenography. The men have to complete that in four months. They are then brought into the general offices and rotated through various departments. They take dictation and do other routine work, but they also sit in on conferences and undertake various assignments of their own.

After a man has gone through the principal departments of the business, he is given a regular job in the type of work for which he has shown himself to be best fitted.

Cadet Engineers.—Similar methods of rotating new men through various departments—along with special study courses—are fairly common in large organizations requiring technical graduates. For example, a number of electrical manufacturers and public utilities have set up "cadet engineering" programs for the training of picked men from the various colleges. During their training period, these men usually enjoy definite, scheduled salary advances. Incidentally, the problem of getting college men who are at the same time experienced in practical work has been greatly simplified by the development of "co-operative" courses in colleges, in which the student has a regular

job throughout his college work, spending alternate periods in the classroom and in the shop. This system was inaugurated by Dr. Herman Schneider at the University of Cincinnati in 1906, and has since been adopted by a number of other institutions. It is a commonplace in and around Cincinnati to find companies whose technical staffs are almost entirely composed of former "co-ops," and many of whose men out in the shop are currently enrolled in the university.

Getting the Lowdown from the Campus.—To aid in its selection of engineering personnel, one steel company makes use of undergraduate representatives on several university campuses. These men are selected from among outstanding students. Experience has proved that such representatives are capable advisers in the selection of others from their school.

. . . Don't Shoot Too High!

"We don't expect every office boy to carry a marshal's baton in his knapsack," said the executive in charge of internal administration of a large New York bank. He was commenting on the problem confronting an industry where no expansion of any sort seems to be in the offing, and where opportunities for promotion are consequently limited. He pointed out that many personnel departments confronted by such a situation will have to revise their thinking on selection. Whereas they have perhaps long been concentrating on getting the highest possible type of applicant for every position, no matter how far down the ladder it might be, they

may now have to determine the best level of intellectual development and characteristics (such as aggressiveness and ambition) desirable for various types of jobs, and to select new material accordingly. He believes dissatisfaction is sure to result if, by and large, positions in his type of enterprise are filled by people who are too good for them and who really can have no great expectancy of rapid advancement.

How Good Are Good References?

One employment director suggests the following checkup as a means of throwing light on the value of references in selection. Take the last 15 or 20 references you wrote for people leaving your employ, and study them from the point of view of a prospective new employer. "Of course, you told the truth, but—. You're probably a little more frank over the telephone than in a letter. You tell friends and people you trust more than you tell strangers. If this is generally true, the telephone is a better source of reference than a letter, and references from a source where there is a permanent contact are probably better than those from a less frequently used source."

Do You "Hold Up a Mirror" When You Select?

"When they interview men for responsible positions, or for positions that are supposed to lead directly to responsibility," said a prominent employment counselor, "an astonishing number of employ-

ers unconsciously look for a *duplicate of themselves*. They fail to recognize the accepted fact that lack of variety in personnel is a short cut to complete stagnation."

"Team Interviewing"

A life insurance company in Hartford practices "team interviewing" when it is hiring someone for a responsible position or someone whom it hopes to develop into a key man. Not less than three, and often six, people interview the person—and they try to arrange the interviewing for two or three different days.

Even those who had been considered skillful interviewers found that when they began comparing notes with the others they often could not put their finger on exactly what had caused them to have a certain opinion about the applicant. "For example," said the assistant secretary of the company, "in my own mind I might decide a person was 'high hat,' but when there were six of us interviewing, I knew I had to find some illustrations that I could give to the other five that would also convince them that he was high hat. In at least 50 per cent of the cases, after I had made up my mind about a trait, and then continued to interview the person until I could find a definite illustration, I reversed myself and decided that he did not have the quality I had decided previously he had. I have learned more about interviewing in the last six months than I had ever, I think, known before."

Let the Applicant Do the Talking

A personnel officer decided that he'd like to get a practical check on himself, to see whether he was living up to one of the most important rules in interviewing—especially when the applicants are for supervisory jobs—namely, *don't do too much of the talking yourself.*

He kept his watch in a partly opened desk drawer during interviews. By developing a simple set of casual marks on a scratch pad, he was able to time himself without the knowledge of the man he was interviewing.

To his surprise, the personnel man found that in many cases he had done almost half of the talking, and that the wide range in his record showed that he wasn't being systematically successful in drawing out the applicants.

By placing special attention on indirect questions rather than direct ones, by doing everything possible to put the applicants at their ease and getting them to talk about themselves, he was soon able to record much less talk by himself, much more by his visitors.

Said one psychologist directing the employment work of a life insurance company, "We know that the interviewer talks too much and the interviewee too little, and we know that unless we are very careful the interviewee who talks the least and lets us talk the most is most apt to get the job."

Placing Young Engineers

"We have found that probably one of the biggest handicaps of engineering students," says a superintendent of a company with food-processing plants in many parts of the country, "is that they have not been obliged to assume individual responsibility, and so are often reluctant to take it. Consequently, we try to place our engineering recruit in a responsible job just as soon as possible—perhaps in a minor supervisory job or a position where he will be definitely responsible, individually, for carrying on a routine investigation.

"Our experience over many years is that a combination of practical work in the factory with some sort of research job involving responsibility is pretty good training for a young engineer."

Three Personnel "Balance Sheets"

A plant in New England has developed a "personnel inventory" of all of its men thirty years old or younger. This inventory covers manufacturing, sales, and general office in all of the company's operating divisions. At the end of the year it provides a central record, in one place, of every young man who has given the impression to those who are close to his work that he is likely to grow in the business.

These records are reduced to three inventory balance sheets.

The first balance sheet shows the proportion of young men with high school background, with college background, and with technical background, because the company feels that it should keep a balance of likely young men of these three classifications.

The second balance sheet shows the number of really promising young men as compared to the number of second-string management men in the various divisions, because the company is especially anxious to maintain an unbroken continuity in material for subexecutive positions.

The third balance sheet shows the record of a young man's growth compared with his pay envelope, because the company realizes that young men who are growing must see an appreciation of their worth in their pay.

Personnel Audit

A company manufacturing controls for automatic equipment made a comprehensive "personnel audit" of every operator in the plant. A special testing laboratory was set up for this purpose, and trained psychologists helped set up the test procedure and the weighting by which results were analyzed.

Working with the psychologists, the plant engineers devised special testing devices which closely paralleled the important operations required by the type of production at that plant. Thus, special "gadgets" measured the accuracy with

which the men being tested could drill holes, turn the screws to regulate lathes, gage parts as in inspection, and the like.

Test results of the plant's best operators were used to set up specifications to be used in hiring apprentices. Although the plant employs only some 300 men, and hires only about 25 men a year, the management feels that the higher degree of accuracy with which it will be able to judge applicants, together with the help furnished by this "audit" in re-assigning workers and aiding workers to overcome certain deficiencies, will amply repay the cost of installing the system.

"We're Choosy—but Our Men Are Good!"

"How do you account for your unusually low labor turnover?" the vice-president of a machine works was asked. He had stated that only three men had left his company voluntarily during the preceding 27 years.

"Our rule is 'Try, try again,' until we get the right man to start out on a job," was the reply. "We make it a rule to be pretty choosy. For example, every new man is given to understand that for the first 6 weeks he is definitely on a tryout basis. If, in spite of the greatest care in hiring, we feel the man isn't just what we want, we let him go in 6 weeks, with no hard feelings on either side. Then we try another, and if necessary, still another, until we get a man who is competent to do our

work, and to take full responsibility for production and quality in our high-precision operations.

"If the new man passes the 6-weeks hurdle, he is put on hourly rates (well above the average for the community) for 6 months, during which time he is given ample opportunity to prove himself in as a permanent employee. But by 'permanent' I really mean permanent—after going to all that trouble, we'll go to almost any lengths before we ever let him go again! And, as I've remarked, only three men have left us of their own accord in almost three decades."

How Does Your Best Worker Compare with Your Poorest?

At a luncheon meeting a group of industrial men was discussing ways and means of insuring the best possible supply of workers for a given type of operation.

"It all boils down to the application of scientific selection methods," declared one man.

"Incentives," said another. "Set standards, and insist on minimum performance."

"It's simpler than that," said a third. "We pay about 15 per cent more than the going rate in our area, and have no trouble in attracting the right kind of men—and keeping them."

"Well, we find the problem a little more difficult than any of you fellows," observed one man, after argument and discussion on the above three points had continued for some time. "Our plant is in a



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relatively small community, and the labor supply for our operations is fairly restricted. Of course, in these times we have no trouble in finding people to hire. The problem is to get the best possible employee on every job. No matter how much more than the going rate we pay, or how good our selection system is, there is only so much cream that we can skim from the top of the supply.

"But even so, records kept on large outputs show that we've cut the difference in output, as between the best and the poorest worker doing the same kind of job, to 21 per cent—which, I believe you'll agree, is pretty good."

"How do you do it?" he was asked.

"By paying special attention to the employees who turn in consistently poor records," he replied. "We don't fire them, except as a last resort. Instead, we do everything we can to keep them on the pay roll. We shift them around until we've succeeded in finding work they seem more suited to."

"Of course, we also keep a constant watch on our supervision and training methods. But we emphasize our policy of *finding the job the man can do best*. That policy pays big dividends in employee loyalty, too."

Best vs. Poorest.—What sort of variation in aptitude can we expect among workers doing similar jobs? Basing his conclusion on mental and educational test scores, and on nine studies of variations in efficiency of employees, Professor Clark Hull stated, "We shall probably not be in great error if we conclude that

among individuals ordinarily regarded as normal, in the average vocation the most gifted will be between three and four times as capable as the poorest" (as quoted in *Compensating Industrial Effort*, by S. Clark Dickinson, Ronald, New York, 1937).

Training People How to Work Rather than How to Do a Job

In an electrical company in England it is impossible to train operators on any specific job, because most of the work is done to order and few operators stay on the same job very long. However, a job analysis showed features common to various groups. Therefore, it was decided to teach the operators correct *work methods* and to give them general ideas of motion economy.

During the first week, for example, girls are taught to use both hands and to handle the screw-driver and hammer. They are given talks on general factory procedure, and are told why an operation is performed a certain way. This last is emphasized, since it is felt that unless they understand the *why*, they will not be able to transfer the benefits of their learning under a different set of circumstances.

Accuracy during the Learning Stage

A study of methods of teaching typewriting, conducted at the University of North Carolina, showed the importance of stressing accuracy during the learning stage.

Two groups of girls were given practice periods of equal length for 36 consecutive days. One group concentrated on speed, the other on accuracy. Four months later a comparison of the two groups showed a definite superiority of the "accuracy group" in both speed and accuracy.

Reported by K. C. Garrison in the article, "Industrial Psychology," in *Personnel Journal* for January, 1939.

Getting the Skilled Men to Teach the Youngsters

The management of an electrical manufacturing company sensed a definite unwillingness on the part of its highly skilled men toward training apprentices.

"Why should we help someone step into our shoes?" seemed to be the prevailing sentiment. The skilled men remembered the layoff periods of depression days and didn't want to contribute to anything that might make their own jobs less secure.

This attitude was overcome by calculating the number of apprentices that would be needed to replace all of the company's skilled men at retirement age. This study was shown to the tool-makers and other skilled workers. It proved to them that the company didn't have enough apprentices for that type of replacement alone—to say nothing of any suspected attempt by management to "pack" the factory.

The company went further and promised the men that, in the event of slack work, apprentices would

be transferred to other work, so that the skilled men would not have to share the work with them.

This fair-minded attitude on the part of management won the co-operation of the men, and they gladly took over the job of showing the youngsters the tricks of their trade.

Teaching Helps Self-respect.—Here is an “angle” on having the older hands teach the newcomers, which was put forward by a salesmanager of an electrical appliance manufacturing company: “We believe that ordinarily it is not advisable to have our salesmen take the time to teach new salesmen,” he said. “However, we often have a salesman teach a newcomer for a reason entirely unsuspected by the older man. When one of our better men seems to be hitting a poor stride, and we feel he should be ‘snapped up,’ we put one of our youngsters in his charge for a brief period, to go around with him on his calls. We have found that this added responsibility usually has a tremendously good effect on the older salesman. It helps his self-respect to know that we want him to show the ‘apprentice’ a thing or two. I believe business and industry should do more of what I term appealing to the craftsmanship instinct—it’s an instinct that isn’t limited to manual operations.”

Versatility Helps Lick Emergencies

In an Eastern power company, gas-meter readers are not only trained in the approved practices of meter reading, but also receive detailed instruction in the work of the bill collector, the job to which meter reading is most closely related.

Ground men in line construction and maintenance gangs are taught not only pole setting, but splicing, transformer installation, and even trouble shooting, in order to make the crew of the greatest possible use under many differing conditions.

Operators in d.c. stations are being taught the principles and practices of a.c. operation, to prepare them for a change-over from d.c. to a.c. for the whole system, now in contemplation.

Incidentally, the industrial psychologist on this company's staff has proved that by applying scientific principles of learning (as he puts it, "principles of the practice curve, the relative merit of distributed as opposed to concentrated practice, the integration of muscular response") better linemen could be trained in six months than in the three or four years which the industry had generally considered necessary. In most units of the electrical industry, instruction of overhead linemen is still under the direction of "practical" line foremen who, in spite of the fact that they know how to get construction and maintenance work done, are not at all trained to be teachers. The psychologist has further proved that applying proper training principles will greatly reduce accidents among linemen. (Principles and methods of industrial psychology are discussed in everyday language in *The Science of Work*, by M. S. Viteles, W. W. Norton & Company, Inc., New York, 1934. Dr. Viteles developed the points referred to in this note in his paper "The Application of Psychology in American Industry" before the Seventh International Management Congress, held in Washington in 1938.)

How One Department Store Is Applying the Versatility Idea.—Girls who prepare book department mark-downs on Monday and Tuesday are wrapper-inspectors in the linen department's Wednesday-Thursday rush, and then do a stint as salesgirls in kitchen wares on Friday and Saturday.

Let the Versatility Idea Come from the Bottom, Up, as Well as from the Top, Down.—Twice a year employees in one plant get a chance to notify the employment manager that they would like to work into some other kind of job or in some other department. There is a steady trickle of letters on this subject into the employment department from workers throughout the organization.

Flying Squadron.—A large rubber plant maintains an average of 500 men in its 3-year training program. This group has come to be known as the "flying squadron," because its versatility has made it a wonderful man-power reserve for emergencies. The force can be concentrated where needed and eliminates the need for "handy men" that foremen so often carry in reserve.

The "S.O.S. Team"

The operating head of a printing firm has organized an "S.O.S. team" of four men for his very large office. Their function is to learn every job in the office and to take care of peak situations wherever and whenever they occur.

"We found that after the S.O.S. team had been operating a while," reports the executive, "we

could get along without the usual vacation relief and do the work better. Last year we gave 'em a new responsibility—the S.O.S. team now trains new men, instead of having the previous occupant of the job do it.

“Lately we have found that these men still have time available, and we are using them to make a complete analysis of every job in the office. It is surprising (and somewhat embarrassing) to note what they have been able to turn up about jobs we thought were already organized to the nth degree.

“Another big advantage of this S.O.S. method, of course, is that it supplies very good material for future promotion.”

Swapping Workers

The personnel director of a Chicago department store happened to be lunching with a friend in the printing business. Conversation developed the fact that the printer's peaks came just at the store's slackest seasons, and his seasonal slumps just when the store usually hired extras.

That gave him an idea—*swapping employees to stabilize employment.*

A few conducted tours of the store's department heads among print shops showed them the type of help there and demonstrated the similarity in such jobs as collating, folding, inserting, and the like, and such store jobs as wrapping, inspecting, and cashiering.

That summer 13 of the department store's employees did part-time print-shop work. That autumn, when work slacked off in printing plants, a selected number of girls and men were told by their bosses, before layoff, that the department store would hire them for Christmas-season jobs.

The experiment proved highly satisfactory. The employees appreciated stepping into waiting jobs to fill ordinary layoff periods, and the store employer got some good human material—people who had already been carefully selected for the kind of work they were to do. Later, a similar swap brought a force of young sleeping-car conductors to serve as floormen. They know how to handle the public, you see. These are young men who don't have the seniority to give them regular runs in the late fall travel slump. After their store jobs, they went back on trains, handling vacation traffic.

The store likes the idea of saving a fair-sized slice of the cost of hiring, checking references, and training seasonal employees—to say nothing of the loss in poor work during the first few days of newness.

This interesting development is reported in *Business Week* for Jan. 28, 1939—"Big Firms Interchange Workers." Other instances have since come to my attention, notably with respect to drivers, where delivery peaks come at alternate seasons.

Every Man a Methods Man

The industrial engineer of a chemical company in New Jersey has obtained outstanding results by

means of a "work-simplification" training course aiming at a *mass attack* on costs. His idea is to put 100 men to work on methods of eliminating wastes and simplifying work, rather than to have one or two specialized engineers attempt to investigate thousands of small production problems. He believes that each of the 100 men he has chosen can be made a specialist in studying the problem in his own limited area.

His program for these men seeks to develop the following four major characteristics:

1. *The simplicity to wonder.*—The application of curiosity to current operating problems.

2. *The ability to question.*—The application to each element of any job of these six questions: WHY? WHAT? WHERE? WHEN? WHO? HOW?

3. *The power to analyze.*—Can the operation be eliminated? Can the order of operations be changed to advantage? Can the operation be simplified? (In this part of the program, motion and time study are taught.)

4. *The capacity to apply.*—The development of the habit of planning every job well in advance; ability to give good, clear, and concise instructions; the avoidance of delay.

In trying to "make every employee in the entire line organization a methods man," the engineer realizes that individual savings produced may be unimportant. On the other hand, a balancing

factor is that the cost of trying out the men's suggestions is rarely too high. For example, nine suggestions turned in by one man show an annual saving of \$2,265, although the saving in the largest single one of the nine was less than \$500.

For details of this very practical program, see "Supervisory Training in Work Simplification," by Clifton H. Cox, in *A Symposium on Unit Costs*, Production Series 112 (1938), American Management Association, New York.

Get Everyone's Enthusiasm.—A number of plants are finding that really startling savings can be made by getting the entire plant interested in motion economy and work simplification—not merely a few methods men, but everyone, from machine tender to superintendent. One rubber products plant in the East has, over the years, carried this employee co-operation to a remarkable degree. A trip through the plant will show countless changes that have been made in methods and machines at the suggestion of the workers themselves. A special drive has been made to link up work simplification with safety—for the "one best way" usually turns out also to be the safest way.

And It Works in the Office, too

A large bank in New York City has very successfully applied the principles of motion economy, originally developed for factory operations, to office work. It arranged for special classes (meeting on company time) of key people in its various

departments, and engaged as their group leader an engineer who had made a record for himself in his work with plant foremen and executives.

Results showed that the basic principles of factory work-simplification—especially the open-minded seeking of improvements in every job—could be used to advantage in the office. Principles of motion economy as used in industry were thoroughly discussed with the group, and the use of the process chart and motion-picture analysis of jobs were explained and demonstrated.

During the first year in which the program was carried on, 197 suggestions for improvements were turned in by those taking the work. Of these, 132 were adopted, with considerable money savings as a result. Many costly forms have been discontinued or simplified. Unnecessary steps have been cut out, at an estimated saving of over 61,000 traveling feet, according to the assistant treasurer of the bank. But the management considers the following results almost as important as the financial savings: (1) The office workers now realize how important they, themselves, can be in reducing costs and improving service; (2) everyone now realizes how important it is to think through and plan carefully before putting something new into operation; (3) employees have come to see that their individual departments are only parts of a whole and must dovetail with the rest; (4) morale has been improved, for employees take a greater interest in their work.

The foregoing is an example of how one industry can use to great advantage ideas developed for an entirely different field. Incidentally, among the latest to adopt work-simplification techniques is the medical profession—to pre-position instruments and otherwise economize motions in surgical operations. The office experience described on page 53 is discussed more completely in *Time and Motion Economy in the Office* (Office Management Series 82, American Management Association, New York), by John T. Sinkey. In that same publication, Allan H. Mogensen describes basic principles of work simplification for the office, in a comprehensive supplementary discussion of Mr. Sinkey's remarks. This booklet is invaluable to anyone planning to study office methods. It is written in clear, nonengineering language.

These Executives Are not "Walled Off"

In one large organization every executive knows and takes part in the training of the group reporting to those directly under him. Thus, every "layer" of executives becomes well acquainted with at least two groups immediately below it, and takes a part in their training as a minimum personnel activity.

Get 'em away from Their Desks

To keep those of its key men whose work doesn't require much traveling from "stagnating" at their jobs, one company making office and store specialties sees to it that over 200 of its department heads spend at least one week a year on an inspection

trip to modern, up-to-date plants in various parts of the country. "The fresh point of view they bring back is well worth the time and money we spend on these trips," says the president.

Personnel Problems Brought by a Company's "Growing Pains"

A company operating a chain of grocery stores discovered, after a period of rapid expansion during which most of its executive attention was devoted to setting up and developing new outlets, that there seemed to be something seriously wrong with its personnel setup. Customers complained of carelessness, inattention, discourtesy, and even dishonesty.

A survey turned up facts such as these: Clerk turnover was as high as 70 per cent a year; a typical employee had held four or five jobs before joining the organization.

During its period of rapid growth, the company had been unable to find enough efficient clerks in its own stores to promote to store managerships. Moreover, a common practice among managers was to keep good clerks in their stores as long as possible, for obvious, selfish reasons, instead of recommending them for promotion; and at the same time every district supervisor was anxious to keep all his first-class store managers in his territory.

As an important step in the solution of this problem, the company established the policy of selecting all of its store personnel from recent graduates of vocational high schools. A training course for all

new clerks was started, extending over two years. The first part of the course was instruction in food-stuffs. The second was a trial period of training in a demonstration store, where the new boys were taught how to meet the public.

Results soon showed the wisdom of these moves. Customer complaints fell off, and a better "tone" was immediately noticed throughout the organization. Records now show that a high-type clerk can look forward to becoming a capable store manager in about 5 years.

This item is based on one of the cases presented in *Introduction to Industrial Management*, by F. E. Folts and E. C. Robbins (McGraw, New York, 1933). This book, which was prepared as a text for the Harvard Graduate School of Business, contains a wide variety of case-study material covering all types of management problems. In each case, background information about the company is given, and a problem confronting management is posed. Questions are submitted suggesting various solutions. Like Professor Schell's book, previously referred to, it is excellent for group-discussion material—however, it should perhaps be reserved for relatively advanced groups.

An Annual Checkup Here

In an insurance company, every employee is interviewed each year, on the anniversary of his employment, by a supervisor next higher than the one in detailed charge of his work. This interview

makes it possible for the employee to find out where he stands and what he should do to improve himself. It also gives him a chance to air any grievance or misunderstanding.

This Company Keeps an Eye on Its Youngsters

A metalworking plant in New England is making a special effort to develop its young men. In line with this program, it has set up what it terms Assembly Groups in all divisions.

Early in the fall every man thirty years old or younger is invited to join one of these assembly groups—groups set up for business discussion. Those who are interested are divided into units of about 30 or 40 members, and a middle-aged man is assigned as group adviser.

These assembly groups choose their own time of meeting outside of working hours, and select their own discussion subjects. The company provides a list of some 70 subjects related to the business, and for each subject indicates one or two managers qualified by experience to talk about them. The company Works Manager is always ready to put his own time and experience at the disposal of the groups.

Two advantages result from these meetings: First, the young men learn about company problems and methods entirely removed from their own immediate jobs; and second, managers and other executives come in contact with promising young men whom otherwise they might never meet.

How They Encourage Study

To encourage study of subjects related to their work, many New York banks have for years been following the practice of refunding one-half the tuition fee to employees completing approved courses in the American Institute of Banking and other local schools and colleges.

Home-reading Box

In various convenient spots in a large plant, a "home-reading box" supplies workers with a wide range of reading matter which they are free to take home for as long as they want it. Similarly, those who volunteer to co-operate have reading boxes in their homes, where they put issues of the magazines to which they subscribe as soon as they are through with them. When they have a collection, they bring it to the plant for the enjoyment of their fellow workers.

Certain foremen rotate as responsible for seeing that the material is weeded out when it becomes outdated.

Engineers and office department heads are requested to stamp "Reading Box" on technical periodicals, catalogues, and appropriate advertising literature as soon as these have served their purpose in the department. A surprising interest is shown by the workers in this educational material.

The Gilbreths were pioneers in introducing these home-reading boxes into plants.

A Training School on Wheels

An oil company, with units in all parts of the country, has organized a "traveling school" to give its employees a working knowledge of the entire business.

The school's equipment is housed in a specially designed truck, which tours the country. Three-weeks courses are open to most employees who come in contact with the public and to many others who do not. Selected groups of 50 workers are granted leave of absence from their jobs and report to the school for 3 weeks of intensive textbook and laboratory training.

Public speaking, personality, and health habits are discussed, as well as technical subjects related to the company's business.

If you have not yet thought much about this idea of bringing company training to the worker, instead of the other way around—and especially if your company's operations are spread over a considerable area—you will probably do well to look up the source of this item: *Forbes*, Jan. 1, 1939, page 16.

The Importance of the Final-contact Employee

One streetcar company gave its conductors lessons in elocution, so that they could call street names and stations in a manner more pleasing and intelligible to customers.

Please the Customer.—The telephone companies have been among the first to recognize the extreme impor-

tance of the *point of contact* between the customer and the organization. In public-service companies and retail establishments this point of contact is usually with the bottom-rung employees, and so creates a training problem of vital—and now almost universally recognized—importance. Many telephone companies give special instruction to installation and service men in the arts of courtesy and consideration, with special emphasis on such important matters (in the eyes of the housewife) as leaving the customer's premises spick-and-span after a job . . . To show how this personal contact often transcends price in importance, Houser cites a situation in a large American city where the rates for gas were among the lowest 25 per cent for all cities of the same size, whereas the rates for electricity were among the highest 25 per cent. The gas company was rendering a service characterized by almost complete indifference to the individual customer. The electric company, on the other hand, was taking unusual care to meet customer needs. In this city a study showed that the general public belief was that gas rates were extortionate and electric rates very reasonable!

Do Budgets Keep Ambitious Men Down?

An executive who prided himself on his cost-control systems discovered, by accidentally overhearing some "grousing" during a noon hour, that the men in his plant definitely felt that the best worker stood the least chance of getting promotion. Why? Because when a foreman lost his best man, it put too big a load on his budget costs, and so if promoting a man meant taking him out of his

department, he was inclined to propose almost anyone else rather than his best man.

The solution was to provide a special item in departmental budgets to offset higher costs when efficient workers were transferred.

Where "Demotions" Paid

It is the established policy in the large offices of a certain chemical company that there be systematic promotion for capable employees—up the ladder to jobs that are better and have higher pay.

However, this policy has caused the company at times to have more top-job candidates on its hands than it needed—especially in recent years, when the labor turnover in its community has been exceptionally low. In such cases, top men have had to be reassigned to less important jobs. Sometimes these men have been paid a much higher salary than would ordinarily have been granted to someone who advanced to that position from below.

At first this was considered undesirable. However, after two or three experiences, the company discovered that the higher paid men more than saved the additional sums spent on their salaries.

The men at first objected to what they considered demotions, but that attitude was overcome by explaining that they would be considered for advancement the next time a suitable opening occurred, and that in the meantime they had a marvelous opportunity to demonstrate how the lower job could be improved.

How Employees Help Run This Business

The 1,300 employees of a New England shoe company are now allowed to elect two of their number to the company's Board of Directors. One worker from the production force and one from the retail division were asked to join the five men on the board. According to the company's social-minded president, these men will help look after an interest that has been neglected too long.

"Multiple Management"

In order to make use of the abilities of the alert young men in his organization, the president of a Baltimore spice company has devised a system that he terms "multiple management."

Under this system, the Senior Board of Directors approves and controls all of the company's policies and general management. But helping this board are a *Junior Executive Board*, a *Factory Executive Board*, and a *Sales Board*—to each of which employees can submit problems having to do with management, working conditions, and wages in their departments. These supplementary boards were originally appointed by the president, but they now do their own electing, periodically dropping some of their members and adding others from an open list of eligibles.

The Junior Executive Board consists of 13 young men. They elect their own chairman and secretary. Members are elected every half year, and serve for 6 months. Weekly and monthly night

meetings are held. This group is independent, and can see any of the company's records. It may recommend improvements or changes in the conduct of the business, provided all members agree on the suggestions. To be put into effect, these recommendations must be passed by the president of the company and the Senior Board.

Since the Junior Executive Board began its work, the senior board has found its work greatly eased. During the first 5 years of operation, over 1,200 recommendations were made, and only three were turned down.

At each half-year election, the junior executives of the company vote for an election committee of seven men. At least three Junior Executive Board members must be dropped at each election and replaced with three new members.

The Factory Executive Board is the clearing-house for the views of the factory workers. This board enjoys the same freedom of speech as the Junior Executive Board, and works under similar rules. No officers of the company are permitted to attend its meetings except as invited guests. The company reports that suggestions by this board have reduced costs $12\frac{1}{2}$ per cent in the first 5 years of operation.

The Sales Board gives the company's 225 active salesmen an effective voice in the business. Ten members are elected to this board every half year. Because it is difficult to bring its members together from scattered sections of the country, the Sales

Board holds meetings only twice a year. However, each meeting consists of a week's discussion of merchandising and advertising problems.

Members of the senior, junior executive, and factory executive boards attend a general meeting every second Saturday morning. These meetings are general forums, in which each of the 42 members of the three boards must summarize the activities of the preceding 2 weeks and present his plan for the next fortnight. No topic is taboo at these meetings.

Multiple management in various forms is now in successful operation in a number of companies both in this country and abroad. Mr. Charles P. McCormick, president of The McCormick Company in Baltimore, has given unselfishly of his time and energy in helping others establish the system which he devised for his own company, because he sincerely feels it brings back a sense of partnership between management and its employees—a feeling of common interest that has largely been lost with the growth of enterprises. His experience has been that multiple management can be made to work in very large companies as well as in small ones. Mr. McCormick has co-operated with business and engineering groups by describing before their meetings how his plan has worked out, and he has written a very comprehensive, lucid little book on the subject—*Multiple Management* (Harper, New York, 1937).

APPLICATION CHECK POINTS

1. What would be the reasons for and against the publication of an organization chart precisely fixing the responsibility of everyone in your immediate organization?

2. What provisions are made in your organization to facilitate the assumption of responsibility by individuals as soon as they show capacity?

3. What qualifications would you set up as important in rating executives in your type of organization?

4. What would you consider to be the specifications for "tomorrow's top men" in your company? How do these specifications check with the qualifications indicated by the application blanks filled in years ago by successful men now in your organization?

5. What more should your company do than it is now doing to assure an adequate supply of potential executive talent? Would you be willing to have temporary subordinates in your department who are being "rotated" throughout the organization? Where in your immediate organization could you use "co-operative" students who would work part time and go to school part time?

6. What sources of reference do you consider most reliable in hiring new workers? How honest are you when you give references of people formerly in your employ?

7. How do your judgments of applicants check up with those of your associates interviewing the same people?

8. Roughly, what proportion of the conversation do you believe you used up in your last 10 interviews?

9. To what sort of routines do you believe young engineers should be assigned in your organization, in order to assure most effective development?

10. What arrangements does your company make to secure the best men from each year's crop of college men? Can you suggest improvements?

11. How would you suggest that your company keep track of the progress of young men in its employ?

12. What sort of tryout period do you believe would be most effective for new workers in your immediate organization?

13. On given jobs, how do your best workers compare with your poorest? How can the gap be shortened?

14. Are there jobs in your immediate organization for which, because they are done to order, new operators cannot well be trained. If so, how can essential *work methods* be taught to prepare people for them?

15. How many apprentices would be required in your immediate organization to replace your skilled men at retirement age? Are your skilled men averse to teaching youngsters? If so, what procedure would you suggest to overcome this feeling?

16. How would you group the jobs under you as, broadly, requiring related skills? How would you arrange for maximum versatility in these jobs?

17. What skills in the work under your jurisdiction are required in other types of business? Do the peaks in these businesses coincide with yours? If not, would some sort of employment exchange be beneficial to workers and managers?

18. How often do executive groups in your immediate organization make inspection tours to modern, up-to-date plants whose operations might be instructive?

19. How rapidly has the organization under your jurisdiction grown up? If the growth was rapid, what types of personnel practices do you think might now be worthy of special attention?

20. Are employees in your organization interviewed periodically? For various occupations under your jurisdiction, how frequently do you think such interviews should occur, and what executive should make them?

21. What list of subjects would you suggest, relating to work in your immediate organization, as suitable for discussion meetings of the younger men from other departments of the company? Would you be willing to address such groups?

22. What could your company do specifically to encourage home reading and study by employees?

23. In what ways do you think the impression left on the customer by the *point-of-contact* employee could be improved?

24. Does emphasis on departmental budgets make foremen and department heads in your company reluctant to transfer or promote good producers to other departments? If so, how can this condition be overcome?

25. How can you apply the "multiple-management" principle in your type of organization?

CHAPTER III

DEVELOPING FIRST-LINE SUPERVISION

In practically every management gathering these days, at least one important position on the program is given over to problems of supervision. *The Foreman as the Pivot Man in Industrial Relations . . . Supervision as Management's Number One Problem . . . Effective Supervisory Training . . . Improving the Foreman-worker Relationships . . . The Foreman's Place in Employee Training . . .* Headings such as these, representing papers delivered at recent conferences, show the emphasis that is today being placed on the problem of developing adequate first-line supervision.

The labor troubles of recent years have underlined the foreman's place in the scheme of things, for often management woke up too late to the fact that its first line of contact with its people—its immediate supervisory forces—was no longer functioning as a true representative of management. Often the foreman's allegiance was divided, simply because management had never really made clear to him on which side of the fence he belonged.

Just what were the limits of his authority? Just how far could he go in speaking for management to

the men? How much was he supposed to know about company policy and plans for the future? Just how big a stake did he have in successful management? Often he didn't know because he hadn't been told.

In many instances, it is true, the decline in the importance of the foreman came about all unintentionally, as far as management was concerned. As one of the men quoted in the following pages points out, the work of the methods engineer and the consulting specialist often resulted in the foreman's becoming hardly more than a mere inspector, a sort of minor overseer with no real voice in determining what, when, and how a job was to be done. His loss of prestige in the eyes of men down the line was a natural result.

In the matter of grievance procedure, the importance of the foreman's place is unquestioned. If he, as the first point of contact, does a poor job of handling a real or fancied wrong, the task of management in promoting sound industrial relations becomes just that much more difficult.

As an instrument in general employee education—in the dissemination of fundamental economic information and in counteracting unworkable “isms” of all sorts—the foreman has recently been winning increased recognition. By seeing to it that he has the answers—the right answers!—to crack-pot political and economic thinking, management can wield a tremendous power for stability in labor relations.

As is true of many a good lesson, it has taken experience to drive these precepts home. Today most large companies are making a sincere effort to develop foremanship in the real sense of the word—*leadership*. Group meetings are held, in many cases with trained leaders. The conference method of stimulating thinking has been adapted very successfully to foreman groups, and foremen are encouraged to get on their feet and take part in group discussions. In many plants, well-organized training courses are under way for foremen, in which discussions of elementary economics are combined with scheduled talks by company executives on industry and company problems and policies, as background information designed to give the foremen a broader point of view in attacking specific departmental problems. Sessions on safety, work simplification, waste elimination, quality maintenance, and the like are then competently handled, with management gladly footing the bill for outside teaching talent and text material.

The importance of supervision in that more or less intangible thing called "employee attitude" was forcibly demonstrated in an Eastern plant manufacturing paper products, where some 300 girls on routine, repetitive machine and conveyor operations were studied. Questionnaires were used, as well as direct interviews in which questions were read aloud and explained to groups of 50 girls.

By applying proved psychological and statistical methods to the framing of questions and analysis of

returns, "attitude scores" on various questions were developed. In one department only 29 per cent of the workers registered a favorable general attitude toward the job, while in another department the figure was 71 per cent. Similar differences showed up on all the more specific attitude scores. The two departments were engaged in the same work, and the type of employees, hours, and wages were the same. Physical conditions in the department with the low score were actually slightly better than in the other!

It was proved to the satisfaction of management that the one outstanding influence at work, accounting for general dissatisfaction, was the poor type of supervision in the lower rating group.

This type of influence was also discovered by Haggard and Greenberg of Yale University while investigating an entirely different problem—the influence of diet and frequency of meals on efficiency. In *Diet and Productivity* (Yale University Press, 1935) they say: "From our studies of the various operations in the plant, we had become deeply impressed with the fact that one of the common causes for low production was maladjustments between the operators and their immediate supervisors. We were impressed further with the fact that the supervisors were often selected on the basis, not of natural ability to supervise, but of their high rate of productivity. It is our belief that this high productivity was sometimes an indication of qualities that made for bad, rather than good, supervision. Sometimes the energetic, conscientious operator who, by intensive application, turned out large quantities of work, made an unsympathetic, meddling supervisor and an overvigorous disciplinarian.

So much indeed were we convinced of the influence of supervisorial defects upon the mental state of the operators, and hence upon their productivity, that although we felt that the supervision of the women in the group selected for observation was unusually good, we nevertheless, after completing our study, enlisted the services of a psychiatrist to interview them and judge their personalities. His results confirmed our belief in regard to the suitability of the supervisors in question."

How Shall One Go about Setting up a Good Foreman-training Program?—This book cannot go into the "how" to the extent of describing complete plans and outlining methods. But at least, it can point out some "where's"! Companies like General Motors Corporation, The American Rolling Mill Co., Western Electric Company and Eastman Kodak Company have well-formulated programs and are often willing to send their mimeographed or printed outlines of discussion topics to anyone with a legitimate interest.

Another good source is the U. S. Office of Education, Washington, D. C. (formerly Federal Bureau of Vocational Guidance).

A practical discussion of ways of attacking the problem will be found in the *Proceedings* of the Conference on Industrial Relations held by the American Management Association in Chicago in February of 1938—"The Role of the Supervisor in Labor Relations" (Personnel Series 33). This booklet describes the policies of the B. F. Goodrich Company, Eastman Kodak Company, and Socony-Vacuum Oil Company, Inc. (To give an example of the type of "background

information" on economic, legislative, and personal leadership problems that can profitably be included in a foremanship program, I quote from the Goodrich presentation in one of the opening items of this section.)

Factory Management and Maintenance devoted a special supplement in its March, 1935, issue to "Foreman Training," in which the Douglas Aircraft Company's program is set forth in great detail, with eight of ten foreman conferences reported exactly as they were held. In the same supplement, outlines of programs then in active operation at General Motors Corporation, International Business Machines Corporation, and The American Rolling Mill Company are included.

Glenn L. Gardiner's *Better Foremanship* (McGraw, New York, 1936) is written in simple language and should prove especially useful in groups where a start must be made in a comparatively elementary way.

In recent years there has been a tendency to select foremen from a somewhat higher educational level—indeed, many a college man will be found holding down a first-line supervisory job. This trend, coupled with the fact that many companies have been conducting foreman-training programs for a number of years, has made it possible in many cases to carry on quite advanced work in foreman groups—including such things as basic principles in motion and time study, plant layout, and production control. (Indeed in my opinion too many foreman-training programs do too much "talking down" to the foremen.) Experiences in this more advanced type of training are given

in Allan Mogensen's paper, "Technical Proficiency in Foreman Training," American Management Association's Production Series 109 (presented at Pittsburgh in April, 1938).

For training courses with "real meat" in them, a very useful little book has recently appeared—*Manual for Executives and Foremen*, by Erwin H. Schell and Frank Forster Gilmore (McGraw, New York, 1939). This volume does not spend space on generalities. It gets right down to brass tacks on departmental improvement, quality control, equipment use, motion economy, and the like.

In setting up a foreman-training program, it may be well to get in touch with your state's department of education, to see what sort of vocational-training services are available to you.

Give the Foremen Back His Job

"In too many plants," complained one personnel manager, "the foreman has become nothing more or less than an inspector. It follows that when labor trouble comes such a foreman is looked upon as an insignificant part in the picture. That is why I insist, over and over again, *give the foreman back his job!*"

"The job of the foreman has often been cut down unintentionally, sometimes as an unforeseen result of an attempt to improve his methods. This can easily happen when specialists spend months in developing certain improved operations and then take perhaps a half day, or even a half hour, to explain the new methods to the foreman.

"Naturally, in that way the foreman cannot hope to get as clear an idea of the matter as the specialist has, simply because he has not been given a chance to put in as much time on it. The result is that the foreman cannot supervise the new operation properly, and someone else is appointed as a general overseer—with many foremen degenerating into inspectors or 'straw bosses.' "

Initiative.—An executive of a rubber plant that has many thousands of workers agrees with this idea. His company has long been known for the excellence of its labor relations. "We have a rule in our organization," he says, "that is largely responsible for our success in handling people. We insist that, within an extremely wide range, every foreman in our organiza-

tion must be able to handle his departmental problems without having to refer them to his superiors."

"Our Foremen's Responsibilities in Black and White"

In a Rochester plant, the job of every foreman has been reduced to writing. His responsibilities, functions, and authority are clearly set forth in black and white. Thus, he is given a clear idea as to his obligations to his superiors, to the men on the same level with him, and to his associates.

"By insisting that these duties are put in writing," says the educational director of the company, "I merely practice what I've been preaching for a long time—If you can't reduce a thought to writing that thought really does not exist; and if you can't clearly define a function, there's either something wrong with you or the function should not exist."

How Does Your Foreman Fit into the Whole Picture?

"We give every one of our foremen an organization chart," said one operating vice-president. "We think it highly important to show him exactly how he fits into the scheme of the entire organization. By looking at the chart he comes to realize that through co-operation with the other departments he is really indirectly co-operating with the president and stockholders of the company."

For an opposite approach, compare this with the item "Jobs Expand and Contract with Men" on

page 28. Which do you think applies best to the foreman group in your own organization?

Typical "Background Information" for Foreman Programs

"It is my conviction," said the vice-president of one of the leading rubber companies, "that if we want to get a message across to our workers—especially today, when an authorized union is the only agency that can speak to the workers—every foreman must be in a position to talk intelligently about the things that are most personal and of greatest concern to the employees.

"Last year, topics discussed at our foreman conferences were as follows: *Human Relations in Industry; Human Relations Problems in this Company; The Social Security Act; The Foreman's Position under Collective Bargaining; Company Policies; The Seniority Problem; The New Employee; The Ohio Unemployment Insurance Bill; People as Individuals; Common Motives and Desires; Plant Protection; The Individual as a Group Member; How to win Friends and Influence People* (a review of Dale Carnegie's book); *Accidents and Your Responsibility*; and, finally, a review of the *Annual Report of the Company*.

"Subjects discussed this winter (our program extends from October to May) include *What Economics Mean to the Man in Industry; Costs and Their Effect on the Worker; The Economics of Labor-saving Devices; Taxation*. We used as text material on taxation two articles that appeared in *Fortune* in December, 1937, and in January, 1938.

"Other topics for this season are *The Economic Aspects of Government Control*; *The American Standard of Living*; *The Stockholder and the Worker*; and *Industrial Harmony*."

For elaboration of these points, See *Improving the Foreman-worker Relationship* by T. G. Graham in the American Management Association's Personnel Series 33 (1938).

"Consultative Supervision"

A grocery chain in Chicago practices what it terms "consultative supervision." Here is an example of what this means:

Every Wednesday the company holds a Supervisors' Meeting for the men who are responsible for merchandising and personnel in an average of 10 stores. The tentative merchandising plan is mailed to these men a few days ahead of the meeting.

When the supervisors come to the meeting, the merchandising manager says, "Here are the reasons why I believe the plan is sound and will receive public acceptance. What do you think of it?"

After the discussion of the program, the advertising for the week is presented, so that the supervisors get the whole story of the coming week's program. When they go out to talk to their people, they know what they are talking about and why the plan is good for the business.

Under the old approach, the merchandising instructions were sent out, reading, "We will sell a

certain item at this price. You will display it this way. Your windows will look like this." And that was that!

The Same Thing in a Food Company.—A large food manufacturing and distributing company practices the same idea. Throughout the organization, from top to bottom and bottom to top, there is always free and honest exchange of views on matters of mutual interest. "The principle is really very simple," says the chairman of the board. "In the daily operation of our business we make certain that no one is ignored on those things about which he thinks he has a right to be consulted."

Frankness a Prerequisite.—The consultative principle is very frequently disregarded when additions to junior executive staffs are made. Top executives are prone to forget that people in their organization have a lively (and often uneasy) interest in just who the chap is who is rumored as coming in, say, on the first of next month—how much authority he's going to have, what his background is, how the position made for him will affect others' opportunities for advancement. Usually a frank discussion of the whole situation, before the new man arrives, will prevent future misunderstanding. The executive should realize that keen personal competition is not an uncommon condition among ambitious men. If the newcomer is to be groomed for a position of ascendancy, why not frankly discuss the reasons for the move with the individuals concerned?

A Program for "Standard Practices"

How many different ways are in use in your plant for doing the same kinds of job? When the super-

intendent of a Detroit metal-working plant found a wide variety of methods for similar work, and saw that apprentice training was slowed up because foremen often didn't explain points that were perfectly clear to themselves, he decided it was high time to do something about developing "standard practices."

Meetings are now held every Saturday for all foremen and engineers. Every major function is broken down into its various operations and studied by the group. All those familiar with the job under discussion make suggestions as to the best way to do it, and these points are written on a blackboard and discussed by the group. The method finally agreed upon is then written out in simple terms and becomes "standard practice." A copy is given to the foremen concerned, and another copy is posted in the departments doing that kind of work, for anyone to consult whenever he wants to.

Ask the Union Man in

Many companies have found that where a plant is organized, two important results are achieved by including a union representative in any methods-training program for supervisors.

First, the suspicion that something objectionable to labor is being plotted is thus avoided; and second, the union representative usually gives the training program his full support as soon as he is convinced that nothing harmful to the best interests of the workers is being planned.

Let the Foreman Help Estimate Costs

A plant engineer stated, "We find that it is a good plan, on custom-built production, to let the foreman actually assist in giving time estimates for the jobs. In this way he is made to feel that he is of help in the preparation of the whole job, and if it becomes necessary to make a reduction to meet price competition, we can ask his co-operation much more readily. He feels that he is a real part of management, and makes every effort to see where he can cut corners and save some time in fabrication.

"In addition, this method brings about a competitive spirit between the various minor department heads, and there is a tendency for them to try to outdo each other in reducing time and costs."

Stem.—"There are four important channels of departmental savings," one superintendent told his foremen, "Savings in *space, time, energy, and materials*. A very easy device to recall these four factors is the use of the initials of these words—S-T-E-M. If you follow this 'stem' it will never leave you out on a limb!"

Weekly Record for Foremen.—In another plant, the production manager makes every foreman keep a simple record of weekly departmental production and pay roll, even though there is a complete standard cost system in force. From his own records, the foreman is required to determine a rough unit labor-cost figure for weekly comparisons. "This personal responsibility keeps them cost conscious," says the manager.

Individual Budgets for Foremen

A New England arms company greatly increased the efficiency and "budget consciousness" of its foremen by changing its whole system of controlling expenditures, so that each foreman now has his own budget, covering his operations alone. Each foreman sets this budget, which runs for a year and is based on standard labor costs developed by the company as of the preceding Jan. 1. Any improvement in labor costs is reflected in budget attainment—and because the foremen set the budgets themselves, they are not so likely to have alibis for poor performance.

The company reports that the keen interest of its superintendents and general foremen in individual departmental budget performance has been a major factor in its record of steadily lowering unit costs during recent years.

Do Your Accountants Know Your Organization Chart?—One engineer pointed out that often an executive or foreman who has been asked to "snap up" his results has difficulty in analyzing his work because his organization chart, which fixes responsibilities, is built up on an entirely different basis from accounting classification of expenses. "Assigning responsibilities and duties on one basis," he said, "and keeping records on another, is like trying to check with a bushel basket something bought by the pound."

His idea is that no part of any expenditure for rent, insurance, interest, or any other item which the one in charge of the organization unit does not arrange

for and pass on should be prorated to him; and no part of any expenditure for which he is responsible should be prorated to some one else—*so far as the operating statement which goes to the executive or department head is concerned.*

Are Your Future Bosses Mentally Alert?

A company with a large manufacturing organization wanted to base promotion of good workers to subforeman positions on more than “hunches” or merely personal judgments.

Of course, such factors as aggressiveness, loyalty, honesty, co-operation, and willingness to assume responsibility, had to be found out by interviews and by reports of foremen, supervisors, and others. But the company wanted some idea of the *mental alertness* of people on whom time and money were going to be spent for special training and promotion.

One hundred simple test items—items of general knowledge which it seemed reasonable to expect foremen to know—were therefore built up to help in selection. These items were based on the existing knowledge of the current foremen, and were made up in this way:

A simple test sentence was taken, such as, “*F.O.B. is an abbreviation for freight only billed, free on board, fill out blank, favor of buyer.*” Three classes of foremen—some who were known to be relatively poor foremen, some who were rated average, and some who were known to be exceptionally good foremen—were then asked to designate the right

answer. If a much greater percentage of the highly rated foremen knew the answer than did the poor foremen, the item was considered "good," and suitable as a test question on someone who some day was expected to be a foremen.

In this way hundreds of items of general information were tried out until 100 "good" ones were obtained.

More complete information on the test described above will be found in "Mental Alertness Tests as Aids in Selecting Employees," by Richard S. Uhrbrock, in *Personnel* (American Management Association, New York) for May, 1936.

The Foreman Can Call Even the Big Chief out of Order!

At a plant manufacturing electrical appliances, a meeting is held every two weeks for everyone with a plant supervisory job—from foreman all the way up to works manager. Everyone in these ranks is required to attend, but the foremen are absolutely in charge, and even the works manager must take his seat down with the audience and can be called out of order if he speaks out of turn. Thus the whole atmosphere is one of free and easy discussion, without restrictions ordinarily imposed by rank. Chairmanship rotates among the foremen.

Some Don'ts about Foreman-training Groups

The superintendent of an automobile body plant observes these "don't's" in his highly successful work with foreman-training programs:

1. Don't call foreman meetings "classes." The fellows don't feel like going back to school, and they don't want anyone wisecracking on the job about "schoolboys."

2. Don't use "canned" texts and other discussion material, syndicated all over the country, too heavily. Make the program alive and vital by discussing problems connected with the plant, the department, the job.

3. Don't use youngsters as group leaders. The practical men in the shop think that some of the bright young men in the engineering department "aren't dry behind the ears." That may not be true—but if that's the way they feel about it, it might just as well be true.

4. Don't ask the men to give up their own time for the entire meeting. It's usually a good idea to split it fifty-fifty.

5. Don't expect results to show themselves overnight.

Group Meetings for Group-meeting Leaders

A plant making electric refrigerators had for some time been conducting conference groups for its foremen, when it decided that it could capitalize on the conference idea by going one step farther and holding periodic meetings for the leaders of the various conference groups.

These group leaders now meet once a week with the Director of Education and others of superintendent rank, to study the material that is to be used in the foremen conferences the following week.

This preliminary conference has made it possible for the leaders to present their material in the best possible way. Actual demonstrations and teaching methods are criticized by the group.

How One Rubber Company Guides Its Foreman Groups.—Every Monday at lunch, all general superintendents and others on the staff review the conference program for the week as outlined by the conference leader in charge. The program goes forward from there with the full knowledge and consent of the management as to what is being discussed.

They Practice Self-criticism

One industrial engineer has found the following method very effective in getting his foremen to be open-minded about suggested improvements in their various departments, without immediately resenting an offered idea as interference.

He asks every foreman to draw up a list of all the things that could possibly be wrong with some job in his own department. Thus, he gets them used to the idea of criticism by having them practice *self-criticism* about some specific operation.

"All men resent criticism, even though they may invite it," is his motto. "It is only by constant repetition and practice that the value of the open mind can become second nature."

Another Way for Foremen to Look at Themselves

A professor of industrial engineering who has conducted many successful foreman-training courses

in plants throughout the country has an interesting "opener" for his first get-together with the men.

All the foremen in the group are asked to make up a self-check chart, as follows: A rectangle is drawn on cross-section paper, and along the left-hand margin are listed some 10 qualifications decided upon by the group as characteristics needed by a good foreman. These include such items as "ability to get along with people," "technical knowledge of the department's work," and "ability to plan and organize work." *The professor is careful not to lay down these qualifications himself—but rather, to bring them out in group discussion and have the group itself finally agree on the 10 that are most important.*

With the characteristics thus indicated down the left-hand edge of the chart, a vertical line is then drawn down the middle, to indicate the position of *average*. The extreme left of the chart then represents *poor*, and the extreme right represents *excellent*.

Every foreman is now asked to mark a cross on the chart, opposite each characteristic, somewhere between *poor* and *excellent* to indicate how much of that characteristic he himself thinks he possesses. The entire cluster of points thus becomes a self-check on his own rating of his foremanship capabilities.

This chart idea serves as a good starting device for a series of foreman group meetings, because it drives home even to the best foreman in the plant that there are opportunities for self-improvement—

characteristics for which he can try to push his check mark still farther from *poor*, still closer to *excellent*.

How Foremen Can Rate Their Men

In a Michigan plant every foreman is asked to rate his men every week. At the end of the month he tells every man his current standing. The following 11 characteristics have been worked out, with maximum rating values:

<i>Qualities</i>	<i>Maximum Rating</i>
1. Does he follow instructions willingly?.....	5
2. Is he clean and orderly?.....	5
3. Does he work from whistle to whistle?.....	5
4. Is his attendance good? Does he report when he will be absent?.....	5
5. Does he take care of company property?...	5
6. Does he work well with others?.....	10
7. Does he do good work?.....	25
8. Does he do his share of work?.....	20
9. Can he work on other operations?.....	10
10. Does he make good suggestions?.....	5
11. Does he work safely?.....	5
	<hr/> 100

Every foreman is provided with a loose-leaf notebook, with a page for each worker under his charge. The number of workers per foreman does not exceed thirty.

This item is based on the article "Every Man in Our Shop Knows How His Foreman Rates Him," appearing in the August, 1938, issue of *Factory Management and Maintenance*.

They Asked the Workers What Was Wrong with the Bosses

Management of a large manufacturing organization conducted a questionnaire among all plant men in the ranks, asking them the types of things they did *not* like in foremen. The questionnaire forms, of course, were arranged so that no returns could be identified.

The replies were then tabulated and an impersonal report on the matter was sent round to all foremen. In this way, improvement was brought about without arousing ill feeling on the part of any individual. The trait on which most men registered a complaint was a "snooping," spying attitude.

One for the Foreman to Think Over

A group of plant-operating men were talking shop. Said one: "I have a simple answer for the foreman who gets sore when a man has gone over his head on a grievance or some other matter. I simply ask him—'*Why?*' Why did that man come to me instead of to you?"

"In practically every case, when the foreman tries to answer that one, he soon begins to demonstrate—even to himself—that the fault must originally have been his. If supervision had been right, the man would not have thought of going over his head."

APPLICATION CHECK POINTS

1. How wide a range for the exercise of initiative and discretion would you say the foremen and supervisors in your organization enjoy? How much time do methods specialists spend in explaining new procedures to the foremen? How do your foremen co-operate in developing methods?

2. What executive and supervisory jobs in your immediate organization are clearly set forth in writing?

3. Where would your foremen appear on an organization chart?

4. What is the educational range of foremen and supervisors in your immediate organization? What types of background information can be discussed with such a group at foreman meetings?

5. Can the term "consultative supervision" be applied to your organization? If not, do you believe the consultative method would bring results? How would you go about establishing it?

6. How are foremen in various departments in your organization working to establish "standard practice" on similar operations? Should this work be done by the methods department, without much actual participation by the foremen?

7. How can your foremen help more effectively in the training of apprentices?

8. What do you think would be the danger, in your particular company or industry, of asking a union representative to sit in on meetings of supervisors? What would be the advantages?

9. What voice do your foremen have in estimating costs? Are your foremen given individual budgets? How can you dramatize costs to your foremen? Does your accounting classification give you costs in accordance with organizational responsibilities?

10. On what procedure do you base your promotion of good workers to foreman and subforeman positions?

11. How can you make your foreman meetings more free of restraint caused by the rank of higher executives attending?

12. What is the relative age of your foreman group leaders and the foremen themselves? Do the group leaders command your foremen's respect?

13. How specific are the discussions in your foreman meetings? Do you use "canned" texts and other syndicated discussion material? If so, how do you supplement it with material applying to your departmental problems?

14. Which method of conducting meetings do you believe best in your organization—the "lecture" method or the "conference" method?

15. Do you hold group meetings for group-meeting leaders?

16. Have you tried to encourage your foremen to criticize their own operations? To evaluate themselves?

17. What simple procedure can you devise by which your foreman can rate their men?

18. Would it be helpful, in your type of business, to ask the workers themselves what qualifications they think go to make up successful foremen? What pro-

cedure would you suggest to preserve the anonymity of those who reply?

19. How do you handle a situation in which a worker goes over the head of a foreman and brings a problem directly to you? Under what circumstances would you condone his procedure?

CHAPTER IV

STIMULATING BEST PERFORMANCE

Selling has been described as "the gentle art of letting somebody else have your own way." This concept might well be adopted by general management in its whole sphere of control—"bossing" in the modern sense being the gentle art of letting somebody else do what you want him to do. This technique of successful persuasion is perhaps one of the most outstanding characteristics of advanced management practice and is the common thread running through all the examples in this section.

These items have to do with such important objectives as making divisional and departmental managers *want* to meet budgets, making everyone in the organization *want* to be cost conscious and methods minded, making everyone *want* to cut down on spoilage and waste and keep quality standards high, and finally—but perhaps more important than all the rest—making everyone from the sweeper-out to the chairman of the board *want* to submit suggestions for improvement at every possible opportunity. All these objectives are, of course, vitally necessary in getting the maximum return on the pay-roll dollar.

The story of the development of scientific management is an illuminating lesson in the advantage

of the leadership principle over the "boss" principle. Everyone knows of the mushroom growth of "efficiency engineers" in the earlier days of the management movement. The whole idea was to find the "one best way" as quickly as possible, and then order the men to follow that way, with little or no regard to the human element involved. If errors in guessing were made, rates were cut and the men had to like it or "lump" it. Antagonism was immediate and bitter, and it has taken tireless effort on the part of today's engineers to overcome the sentiment expressed in such phrases as "that s.o.b. with the stop watch!" The phrase "work simplification," now current to describe the objectives of motion and time study, has a much happier sound to the ear than "efficiency engineering," or even "motion and time study." It expresses the co-operative nature of the work being done by scientific management today—making work easier and more pleasant for workers, as well as more profitable to management.

In his monograph "Scientific Management," in the *Encyclopaedia Britannica*, F. J. Miller says, "... with all of Taylor's intellectual keenness and in spite of his excellent intentions he was not a good psychologist. He had difficulty in perceiving why a proposition made by him, and which he believed to be entirely fair and even advantageous to the workers, should not be readily accepted by them . . . Gantt, who worked with Taylor for a number of years, was well and broadly educated, but had had no

industrial experience . . . He became consultant to a group of factories in which the so-called *human element* had received much attention . . . It soon became apparent that, in order to make satisfactory progress, Gantt had to be relieved of all responsibility for bringing minor executives and employees 'into line.' Taylor's unmodified system showed weaknesses where it came into contact with foremen who had been in the habit of thinking, making suggestions and having them met with at least appreciative attention. These men lost interest at first, and had to be taken in hand by someone whom they knew, and in whom they had confidence . . . Gantt had learned a great truth—that it is better to enlist, at the beginning, the interest of the workers and foremen by giving them recognition and a part to perform."

When "Batting Averages" Were Made Public

The operating vice-president of a manufacturing company with plants in all parts of the country hit upon a simple device that, he claims, has done more than any other single thing to appeal to his managers' pride of performance.

For many years it was the company's practice to send monthly consolidated operating reports for the whole company to all plant managers. Formerly, the individual plants were listed alphabetically in these reports, according to location by state and city, with the operating figures accompanying each. Now the plant with the best budget-attainment record is listed first, and the rest follow in the order of their operating performance.

A friendly cost-cutting competition among the managers of the individual plants has resulted. The first thing every manager looks for when he gets the report is his own plant's standing—and he'll move heaven and earth to bring up his batting average.

Competition.—Frank B. Gilbreth made great use of the competitive idea. In *Motion Study* (Van Nostrand, New York, 1911) he says, "On engine beds and similar work where the pieces are isolated, assigning groups of men of different nationalities to the different beds will create extra interest in the contests. If this is not feasible, put the tall men on one bed and the short men on the other, or the single men against the married men, or Eastern 'pick-and-dip' men against Western 'string-mortar' men."

In Steel.—It is said of Charles Schwab that he had only to walk through the plant and chalk up, in some prominent place, the number of "heats" turned out by one shift, and those on the next shift would move heaven and earth to better that figure.

A Steam Laundry in Washington, D. C.—This plant uses a large "score card" to compare the work of employees. The initials of members of a department are at the top of vertical columns; horizontal lines mark off blocks for every day in the week. At the end of each day errors are recorded on plant report slips, which are turned over to department heads. They, in turn, chalk up the record on the board. A reasonable number of errors a week is allowed without comment.

Athletics.—Coaches know that runners cannot make as good speed when running "against time" as when competing directly, neck to neck, with other runners.

"Go Thou and Do Likewise!"

Nothing is so discouraging to an alert employee as to feel that he's "in a rut." That is why a corporation with large office operations in all parts of the country makes it a point to give special publicity to all promotions. A bulletin is sent at regular intervals, giving the names of those who have been promoted, the jobs from which they came, and their new duties, together with a brief paragraph of commendation. This procedure has been found to stimulate the ambition of all employees.

But it is extremely important to remember that promotion is not the only way to show the employee that he is not in a rut. *Nor is it always the way desired by the employee himself.* Students of employee attitudes have demonstrated that the desire for promotion is not universal, and, for a great many people, is not an important factor in determining their morale. Much can be done by management to enrich the employee's existing job, to give him greater opportunity for self-expression, to appeal to his pride and sense of craftsmanship by giving him a better glimpse of the end results of his own work, even though it may be a minor function. Often this can be accomplished very simply by letting the employee know, every now and then, that his work is satisfactory; and by listening to and appreciating his suggestions, even though they are not adopted. In short, by treating him as a human being and not merely as a pay-roll unit. (Compare with the item, "Don't Shoot Too High," on page 35.)

A "Leader" in Each Department

The road to promotion has been made a little more distinct at the plant of a stove-manufacturing company in Kansas. In every department with sufficient men to make the plan feasible, a workman is set up as a "leader," but he is without supervisory authority. The leader gets 5 cents an hour more than a first-class workman. He is, of course, next in line for promotion.

Watching the Clock with a Purpose

In one large office, the general manager had been hearing a lot of complaints about overworked,

understaffed departments. One morning, everyone in the place found a neat mimeographed form on his or her desk. A note requested that everyone keep track of the various tasks worked on during the day, together with the approximate time consumed on each. It was made clear that not too great precision was expected and that no one was required to spend time filling in too many details.

Although the explanation with the form stated that the reason for the checkup was to see if additions to the staff were necessary, no requests for additions were forthcoming from the departments. The mere fact that he was keeping a record of what he was doing made everyone much more careful of his expenditure of time. A general "tightening up" all round resulted.

That Personal Touch

Millions of firebricks in standard sizes leave a Missouri firebrick plant. However, there are usually some demands every day for bricks in highly special shapes and sizes.

Such "custom jobs" go to experienced molders. Each molder has a personal stamp, reading "Made by So-and-So," with which he makes an impression in the moist clay before firing. As a result, that workman can look at such a special job as *his*, and pride of craftsmanship makes him take double care to turn out good work.

The Same Psychology Here.—In a metalworking plant in Illinois, the words "Operator" and "Assistant" are stenciled on machines. The names of the

man running a machine and his assistant are printed in full. "It seems to dignify the positions of the two men," says the works manager, "and it gives them a sense of security. It also makes it much easier for everyone to learn the names of new men."

But Don't Forget the "Reverse Angle."—Where people doing high-class work are required, because of competitive or other business conditions, to produce markedly lower quality work, it is well for management to explain the reasons for the move very carefully or a harmful lowering of morale might result. One plant manager actually found girl assembly workers in tears because of such a situation—which, fortunately, he was able to clear up by a careful explanation to the group of the pricing conditions confronting the business, and by an assurance that the work was not being "passed off" to the customer as equal in quality to the higher priced article. . . . In this connection, Gilbreth found that many expert face bricklayers would quit a job rather than lay common brick on exterior walls, even though they could earn higher wages on outside work.

They Tell Visitors about Their Jobs

One large company escorts thousands of visitors through its plants every year. It arranges to have foremen at key positions tell the visitors about their departments' operations, rather than to have the guides do all the talking. This not only lends a greater air of authority to the descriptions, but also appeals to the pride and sense of craftsmanship of the foremen and their men. They have more of a

feeling of demonstrating operations, rather than, as one man put it, being "monkeys in a cage," stared at by curious strangers.

A Thought on Talking

A company with large-scale routine assembly operations found that group efficiency was increased when it permitted talking. "Our experience has been," said the superintendent, "that where there are good relations between management and employees, the workers will themselves control talking when they feel that it is interfering with results.

"The very fact that we permit talking helps build up proper relations—it eliminates resentment about a rule which many would think unreasonable.

"As a matter of fact, in operations where we did forbid talking, except where the work required it, we found that the work gradually seemed to require almost continuous conversation!"

Why Take All the Fun Out of Work?—In a textile mill, girls who were engaged in strictly automatic work were formerly placed all facing one way, so that each girl saw only the backs of the girls in front of her. To discourage talking, management had even put small partitions between adjacent operators! This mill used to turn over practically its entire force every year. Now the girls have been grouped into a sort of round-table arrangement, and conversation is not discouraged. Turnover has been reduced to a normal figure.

"Reverse English" on Equipment Requests

Many a plant department head has complained how hard it is to get a requisition through Front Office for some needed or desirable new equipment. Things are far different at one large metalworking plant. There, every major department head is required to show periodically why a new machine or piece of auxiliary equipment should *not* be purchased. He is expected to keep up to date on all technical developments in his field, and equipment that is older than the plant's average age for equipment (which, because management keeps such a constant check against obsolescence, is surprisingly low) must be justified beyond question.

Inventory Committee

The operating head of a steel company with many scattered plants appointed a special Inventory Committee for each district, consisting of an accountant, an order-department man, an operating executive, and a metallurgist. The duties of this committee is to see that inventories are kept to a practical minimum consistent with customer demand.

"The vital element," says the executive, "is not the specific system that each district has worked up to keep track of its stocks. Rather, it is the aggressiveness in keeping the subject of inventory active—forever uppermost in the minds of responsible individuals."

Morning Meetings Untied the Knots

"Whew! I'll have to do something pronto about *that!*" said the plant superintendent, wiping his brow as he gingerly closed the door marked "Private" and made his way through the outer office. He had just left a very stormy session with the president, because this huge printing plant had found itself "all tied up in knots" with regard to meeting its hundred and one different deadlines and special customer requests.

The "super" ironed out the difficulty by arranging to meet with all foremen for about one-half hour each morning, before the day shift got too far under way, for thorough discussions of interdepartmental problems affecting schedules.

They All Want to Be Members of This Club

One company maintains an Efficiency Club of employees who have reached a fixed standard of efficiency. The club is limited to 75 members, and standards must be maintained continuously if an employee wants to stay in it.

A point system is used to determine efficiency. This includes regularity of attendance at the club's semimonthly meetings, number of suggestions made, and membership or chairmanship of any committee. For example, if a motion made by a member is adopted, ten points are allotted. A motion considered but refused nets him seven points. Results of his daily work also, of course, influence his standing.

The club maintains committees on cleanliness, recreation, safety, and the like. Criticisms and suggestions are reviewed at the semimonthly meetings.

To Discourage Carelessness

A drugstore chain issues to its employees an equipment book which gives the price of each piece of equipment used in food service at its fountains.

Whenever a breakage occurs, the employee must turn in a signed memorandum that tabulates the name of the article that has been broken and the amount of damage according to the figures in the equipment book. Although the cost is not charged against the employee, this procedure does impress everyone with the cost of the equipment, and the fact that each breakage record is on file tends to make employees more careful.

Translate It into Dollars

"This machine cost \$1,694 . . . " Small plates reading like that are mounted on all important equipment in a Middle Western plant. That terse information helps to drive home to the operator that the equipment—like his own automobile—will best repay the investment in it if it is used properly.

Where manufacturing processes are such that the huge investment in equipment is the dominating factor in costs, companies are finding it effective to have such placards read something like this: "When this machine *is not running* it costs the company x dollars per minute."

They Make Waste Real to Workers

As one feature in a special drive to reduce waste losses in a large metalworking plant, every employee received a personal letter from the works manager, addressed to him at his home. This letter called the worker's attention to large annual losses caused by waste and outlined the measures that the company wanted to emphasize in trying to reduce this figure. The letter closed by inviting employees to submit suggestions and promised to pay awards for accepted suggestions in proportion to the savings effected.

The company reports a highly satisfactory response to this personal appeal.

"Pork Barrels" Dramatize Waste Here.—To dramatize waste to all employees, an automobile plant stationed bright-red "pork barrels" in every department. Large labels pasted on the barrels read, "Put in anything you find mislaid which has any value. WATCH THIS BARREL FILL UP!"

As the barrels filled, a record was made of the total value of the contents, and the figure was posted prominently.

Spoilage and Waste Committee.—A food company has organized a group of its young engineers, taken from various departments in its larger plants, into a Spoilage and Waste Committee. This committee makes a written report to management every month. Significant leaks and losses have been discovered, and the young fellows are getting valuable training and experience.

These Men Get Individual Waste Records.—An Ohio paper-bag-manufacturing company found it very effective to give every operator an individual report of his production and waste, together with the total figures of all the operators, showing each individual's percentage. The former practice had been merely to give the men, from time to time, the total of each machine for the month. As different operators run the same machine on different shifts, the men were interested in finding out which ones were responsible for most waste.

The new way of issuing the figures has created a friendly competition among the men, and substantial savings have been achieved.

They Make Quality Real to Workers

At a plant manufacturing radios on a mass-production basis, several chassis-assembly lines have approximately 100 operators each. Records are kept of the percentage of defects in work from each line.

To improve the line operators' attitude toward quality, a large display board representing a race track was set up in one end of the assembly division. Movable horses were mounted on the track, each bearing the number of a given assembly line.

Positions of the horses were changed daily, according to the quality score turned in the previous day. At the end of a specified period, the line whose horse won the race was presented with a cup, and a dinner was held in the men's honor.

Selling Quality to the Entire Plant.—At a plant making precision instruments for marine use, the idea of placards and posters, so successfully used in safety work, has been applied to the dramatization of quality. Colorful, well-executed quality posters are mounted in all parts of the plant and changed frequently to keep employees interested in them. The company's products in actual installations are pictured, with such captions as "Your skill and care have placed X Company's machines out in front—let's all try to keep them there!"

They Asked Employees to Define Quality.—To make every single employee in all of its plants quality conscious, one company announced a slogan contest, for which numerous cash prizes would be awarded. The rules were simple: To tell in 25 words or less what *Quality* means. Any employee was permitted to submit as many slogans as he wished. Participation by the company's various divisions ranged from 50 to 90 per cent.

Translating Spoilage into Real Life.—To make everyone visualize the effect of poor work, one electric company assembled a complete radio made almost entirely out of defective parts turned out by the various departments. A large sign was mounted on this set, reading: "Try to play this radio—Would *you* want to own a set like this?" Beneath this headline a detailed description was given, outlining the various things that were wrong.

"Quality and My Job."—A chemical company reports very effective results from an organization-

wide speech competition on the subject of "Quality and My Job." Each talk had to be delivered in approximately 15 minutes. Elimination contests were held by departments, areas, and plants.

Interest was instantaneous, and was kept alive by progress reports on bulletin boards and by articles in the company's various employee magazines. Friendly rivalries in giving the best "spiel" soon sprang up, and interest was at its peak when the final elimination contest was held.

The final winners made a tour of the company's various plants, to deliver their talks at special employee meetings and entertainments.

Tell Workers the "End Results"

In a steel shop of an automobile factory it was discovered that many of the men working on the shaping of large metal sheets did not know that these were being made into automobile bodies in the very next department! By encouraging them to use a little of their spare time to check into what was happening to their own product in other departments, the department head was able to arouse greater interest in their work and to drive home the reasons for the quality standards that had been set up.

And therein lies the whole pathos of the WPA and other "make-work" schemes. There were volumes of practical philosophy in that cartoon in *The New Yorker* of some years back: To a query of an onlooker, a pick-and-shovel man in the street replies, "Oil well . . . subway . . . new building . . . I don't know . . . *The WPA just said dig!*"

No Inspectors Needed Here

In one plant in Germany there are large signs reading I AM MY OWN INSPECTOR. One of these signs is placed over each machine where the man has demonstrated that he consistently does such careful, accurate work that the expense of inspection and checking is unwarranted. The good operators, of course, take immense pride in achieving this distinction.

Pride.—A famous automobile company has in recent years been conducting a program of decentralization. It claims that one advantage of its small plants in nonindustrial centers is the higher type of worker that can be attracted, with consequent reduction in supervisory and inspection costs. Thus, at one small plant making motor-generator sets, only 65 men are employed. But practically all of these are highly skilled craftsmen. The rule at the plant is "No inspectors needed." The men scoff at the very idea of inspection. "Who would be good enough to inspect *our* work?" they ask.

They Keep Things Shipshape

In one plant where many visitors are shown about during the course of a year, a large sign is hung from the ceiling in each department, giving the name of the department and of the man in charge. This publicity has been a tremendous aid to good plant housekeeping, because the department heads don't want to make a poor appearance in front of "company."

The Same Idea with "Reverse English."—In a rubber goods plant, a big chart labeled "Dirtiest and Most Disorderly Department" was put up in the office of the superintendent, with a square for every foreman.

How about a Housekeeping Committee?—Many plants have safety committees—but how many have housekeeping committees? A Western factory found that by making definite persons responsible for definite areas, employees could be urged successfully to keep lockers and personal effects neat. This method proved much better than a general order every now and then from the Front Office.

They Must Pass a Cleanliness Test.—In a well-known candy factory, every person on arriving for work each day must pass before the head of his or her department and undergo a rigid examination on cleanliness of hands and general appearance. Even length of fingernails is taken into account. If a worker attempts to dodge this inspection, he arouses immediate suspicion. Penalties are imposed if examination is evaded. Three evasions bring dismissal.

There's Usually a Better Way

This is the way a successful consultant in work simplification drives home the idea that those tasks with which we are most familiar are usually the ones that offer the biggest opportunity for improvement:

He tells supervisors and department heads to draw up a complete description of some everyday operation in their own homes—firing the furnace,

shaving, shoveling snow, for example. All of the separate motions making up the job must be described, together with the time taken to accomplish each and the number of feet of travel where lifting or transportation is involved.

The men in his training courses quickly enter into the spirit of this "homework" and usually discover that the task had become so automatic that an obvious improvement in method had been overlooked for years.

Blank.—A certain executive has a watch with a blank face and no numerals—just hands. This blank watch, fully useful without numerals, is a mute reminder to subject every item of the job in hand to the question "Can I eliminate this and have a better, stronger, more satisfactory job?"

And in this connection, let me add an admonition often made by Mrs. Gilbreth: *Too many operations are studied that should never have been performed at all.*

"Why?"

Many companies are achieving astounding results by means of "why" questionnaires. Every worker in the plant is given an opportunity to submit to his foreman or department head a "why" question, asking the reason for any existing procedure or operation.

Whereas managements trying this scheme had previously found it difficult to induce employees to make worth-while suggestions—even though sug-

gestion boxes were installed, posters were put up, and prizes were offered—they found the response to the “why” idea startling and illuminating. It soon became evident that although it is often difficult to persuade employees to make suggestions about improvements, *they will readily ask questions about existing methods.*

Under the “why” plan, best results are achieved if it is required that questions be presented to the foreman first. The foreman will try to work out the answer with the employee, and often a joint suggestion to management results. The foreman should be asked to write out his answers to all questions, if he knows them. If he cannot answer, he must submit the questions to his immediate superior, and the “why” questions thus go up the line until a satisfactory answer is found.

Executives trying this plan are usually amazed at the number of “why” questions that have no answer, and consequently result in improvements or elimination of unnecessary operations. And here is an important point: Many questions submitted may be frivolous or unnecessary. But what may at first glance seem questions whose answers are perfectly obvious, may reveal unhappiness, grievances, and difficulties that were never disclosed before.

In a Plant Making Spark Plugs.—In all departments of this business large placards were prominently posted bearing large question marks and the single word WHY? Management reports that this one method

resulted in more constructive suggestions than any other single "stunt" that had ever been tried.

Schell and Gilmore make the following point in *Manual for Executives and Foremen*: "In some of our cities are huge barnlike structures at railroad terminals completely sheltering incoming trains. Only within recent years has it been found that it was the passengers rather than the trains that needed shelter. Now these costly buildings are being replaced by inexpensive sheds extending from the station and between tracks. Someone asked, 'Why?'"

"The Sky's the Limit" in This Suggestion System

The factory operations of a New England company making hardware for leather goods are of such a nature that costs can be allocated very accurately to the various lines of buckles, buttons, clasps, and the like, manufactured. Thus, if an improved method results in a saving of so many cents per gross of an item, the total saving can be figured very closely for the ensuing year by applying the unit savings to the hundreds or thousands of gross sold, on the average, per year.

The ease with which improvements can thus be translated into dollars per year led the company to announce that it would guarantee to every employee one-half of the savings resulting from any suggestion of his, figured for the year following its adoption. It is, of course, very easy to explain such savings to any workman by showing him the sales figures on the item. This method of compensating for

suggestions has been in force for years and has resulted in many valuable improvements.

"But," said one engineer, when the plant's factory superintendent explained his system at an engineering gathering, "do you follow that rule absolutely—even if by some 'fluke' a workman might suggest something netting thousands of dollars?"

"Absolutely," was the reply. "We've never 'chiseled' once—and our men know it. *The sky's the limit!* Just last week I okayed a voucher for \$350 to a man in our stamping department for an idea he turned in."

Speaking of Suggestion Systems.—A speaker got a few things off his chest at a recent management conference. He has had remarkable results in getting employees to send in ideas for improvements and economies, but he insists on operating suggestion systems through foremen and supervisors. "Most suggestion plans have failed," he said, "because they were initiated on a wholly false premise. We have said that workers will not submit suggestions through the foremen because they may resent criticism and reject the ideas. Management has therefore devised a system of numbered blanks and stubs, and has said, 'Put your suggestion in the box when nobody is looking,' on the assumption that a worker cannot trust his own foreman. I feel this is absolutely wrong. Possibly some executives have had success with such a system. But they could achieve far greater success if they founded their plan on mutual confidence." Results of experiences of this sort can be found in

the paper "Technical Proficiency in Foreman Training," by Allan H. Mogensen, in the American Management Association's Production Series 109, *Personnel Problems in Production*. The paper was delivered at the AMA Production Conference held in Pittsburgh, April 20-21, 1938.

If You've Promised to Pay for Suggestions, Pay Promptly!

"Here's an important thing to remember about suggestion systems," said a factory manager of a metalworking plant. "Awards, if they are made at all, should be made *promptly* after the suggestions are submitted. Employees don't like to wait . . . If the advantages and savings resulting from suggestions are intangible and unpredictable, but the suggestion is nevertheless one that should obviously be adopted, it is better to set arbitrary figures for the awards and pay immediately, than to wait to see just how much will be gained from the idea."

Suggestion Systems Work without Cash Awards

A company manufacturing refrigerators established a suggestion system under which there were no awards. However, each man making a worthwhile suggestion received a certificate of merit. The reverse side of the certificate read: "We know all industries are trying to employ the best kind of men, and believe that one company can often be of help to another in locating such men. Our Suggestion Plan helps us find those men who are really

interested in their work and are trying to make a better product at a lower cost. The bearer of this Certificate has shown such intelligent interest, and we shall be glad to give a complete description of his experience in our plants to anyone considering his services."

Needless to say, the men prize these certificates highly as an aid in getting other jobs if they should ever leave the company's employ.

An Eastern Company Making Hard-rubber Products.
This company has also obtained good results with a suggestion system that involves no cash awards. Every foreman is asked to solicit suggestions from his crew, and to turn these in to the Suggestion Committee which passes on their merits and orders those that seem practical to be put into operation. When an idea is adopted, a name plate honoring the employee who made the original suggestion is mounted on the piece of equipment or unit involved.

APPLICATION CHECK POINTS

1. Where can you best make use of the competitive spirit in stimulating performance?
2. Among what percentage of the rank-and-file workers in your immediate organization do you think the idea of *promotion* is of great importance? What do you think would be gained by giving wider publicity to individuals promoted?
3. How important are "unofficial leaders" in the class of workers you employ?

4. How can you give rank-and-file workers in your immediate organization a greater sense of personal accomplishment in connection with their work? How can the craftsmanship idea be instilled into routine operations?

5. Do you believe tours of visitors through your plant appeal to pride of workmanship of your employees?

6. What effect do you think conversation by employees has on group performance in your type of operations?

7. Do department heads in your organization have to explain why new equipment is needed—or are they made to justify lack of requests for modernization?

8. In what operations do you believe it would be advantageous to have daily or weekly meetings of department heads for specific discussions of schedules and operations?

9. How much breakage and damage in your various departments is directly due to worker carelessness? What procedure have you developed to reduce it?

10. How are you dramatizing the cost of equipment and of idle equipment time to your workers?

11. How are you dramatizing the cost of waste to all workers? Which workers in your various departments would be suitable as members of spoilage and waste committees?

12. On what operations would it be feasible to keep individual spoilage and waste records for operators?

13. How are you dramatizing the importance of quality to all workers? On what operations would some competitive "stunt" work?

14. Which operations in your organization would you class as most routine, least creative? What steps are you taking to make this work more real to the workers? Would making workers more aware of the *end results* of their operations help?

15. Which operations under your jurisdiction might lend themselves to combining actual operations with inspection or test, or both? Would this require an intensive training period? An expensive rearrangement of operations?

16. How are you dramatizing the importance of good plant housekeeping to all workers? Which method would best fit specific cases in your immediate organization—commendation for good housekeeping results, or calling attention to poor housekeeping?

17. How are you encouraging workers to study their simple, familiar jobs for possible improvement?

18. Is everyone in your organization making sufficient use of the word WHY?

19. How active an employee suggestion system is in force in your organization? Have you drawn up a definite policy on awards? How soon after a suggestion has been adopted do you pay the award? What appeals other than cash awards for suggestions might be made to work in your organization?

CHAPTER V

MAKING WORK EASIER

In applying their slogan, "Do the work the one best way," the practitioners of work simplification never lose sight of the fact that the easiest way usually turns out to be the most productive way—productive for management, in that it lowers unit costs, and productive for the workers, in that it makes possible greater output without increased fatigue, and so increases individual earnings. "Work," in short, must be looked at instinctively in terms of results and not in terms of effort or of energy expended. Moreover, as indicated in the section following this one, making work easier usually makes it safer, too.

By applying the principles of motion and time study, methods engineers are today achieving startling results in the form of tremendously increased outputs per worker. Careful study of all motions going into an operation—often with the aid of motion or micromotion pictures—enables them to determine the smoothest, most efficient way to do a job, with both of the operator's hands sharing the work as equally as possible. Fixtures are developed to release the hand from holding duties. Tools are prepositioned to avoid delays

in groping for them. Workplaces and supply bins are arranged to eliminate unnecessary reaching. Supplies are furnished in a way to eliminate stooping and lifting. Machine controls are designed for a minimum of stretching and straining. Posture chairs are designed for maximum comfort and ease. Glareless light, of sufficient intensity and proper quality, is directed at the workplace to eliminate eyestrain. Chute delivery is provided to make unnecessary extra motions involved in reaching for items to be worked upon or getting rid of finished work. Process-chart analysis of the movement of work in process leads to simplified equipment layouts, with all unnecessary walking and transporting eliminated. In short, everything possible is done to make every operation easy, natural, and productive.

Much of such improvement in the work setup can be attained by common-sense application of a few of the basic principles of motion and time study.

Although the foundations of motion and time study were laid well over a quarter of a century ago, with the work of Taylor and the Gilbreths, it has been only within approximately the last decade that these techniques have been widely applied—that they have been accepted as “practical” by industrial managers—as workable tools and not laboratory exercises.

Allan H. Mogensen's *Common Sense Applied to Motion and Time Study* was one of the early books in the recent “practical stage” of the art. For those just going into the subject, it would perhaps be more helpful first to study *Motion and Time Study* by Ralph

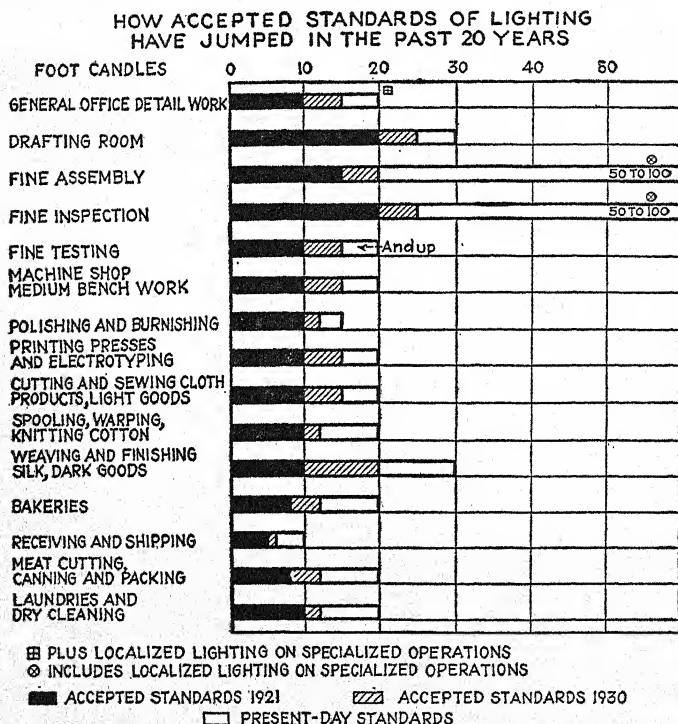
M. Barnes (Wiley, New York, 1937). That book sketches the history of the movement, and then gives a clearly written account of principles. Dr. Barnes's book was written for use as a college text and is most comprehensive in treatment. Mr. Mogensen's book, in addition to discussing principles (necessarily more briefly than does Dr. Barnes) contains "case" material contributed by engineers of various companies, showing application to specific situations. Current issues of *Factory Management and Maintenance* will help you keep abreast of developments.

But the "stage setting" for work simplification of this sort must also be right, for people can do no better work than their physical surroundings permit. *Good working conditions* are today proved to be a primary requisite to performance, and many companies cite astonishing increases in output, reduction of errors, and better morale all round, as a result of special attention to the physical conditions of the workplace: increased illumination, improved ventilation, installation of air conditioning, and the like.

Many examples of this sort have been appearing in the technical press. Their effect upon standard practice as regards level of illumination has been marked. As shown in the chart, given on page 122, accepted standards of illumination have doubled and tripled in the past 20 years.

Within the past 35 years, air conditioning has been applied to more than 200 industries. In the majority of these cases, installation was made for

some specific process reason; however, manufacturers soon found that the "man-made weather" was paying an added dividend in the form of



Sources: Lighting Codes 1921 and 1930; NELA PARK Engineering Div., General Electric Co.; and others. (Courtesy *Timely Ideas*, McGraw-Hill Publishing Company, Inc.)

improved comfort and efficiency of employees. Here, again, the technical press has presented abundant examples of savings brought about by such atmosphere control.

Since my purpose here is to concentrate on the human element in employee-worker relationships, I fear I should be wandering from my field in attempting to include examples that involved extensive equipment installations or other technical considerations. That is a subject for at least one book by itself. However, this collection of ideas is supposed to stimulate thinking. So, just to point out the kind of results that are being achieved, I do want to mention in this note several representative experiences.

As Regards Lighting.—A “trial installation” convinced a Chicago company making radio coils and condensers that stepping up illumination can be made to pay for itself many times. The test installation was made in one bay in the assembly department, where fine, accurate work is done. Increasing the intensity of illumination from 8 to 50 foot-candles (with fixtures that prevent glare) led to an increase in production of 16 per cent, in comparison with other sections doing exactly the same sort of work. Rejects were reduced to such a low figure as to break all previous records. As a result of this trial, a complete installation was made for the entire plant.

The table on page 124 shows increases in production ascribed primarily to increased illumination.

Modern equipment makes it possible to suit seeing conditions exactly to the job requirements. Where color distinctions must be made, “daylight” illumination will provide light of proper spectrum distribution. Mercury-vapor units and the more recently developed sodium lighting provide light that brings out sharp details for fine work.

INCREASES IN PRODUCTION DUE PRIMARILY TO INCREASED
LIGHTING

Company—Operation	Old level in foot-candles	New level in foot-candles	Percentage of production increase
American Metal Works, Philadelphia, Pa., turret lathes.....	12	20	12
Decorative Lamp and Shade Co., Philadelphia, Pa., metal shop.....	3	15	18
Decorative Lamp and Shade Co., Philadelphia, Pa., woodworking shop.....	5	25	21
Detroit Piston Ring Co., Detroit, Mich., grinding and machine work	1	14	26
Matell Mills, Philadelphia, Pa., splicing.....	5	28	8
Philadelphia Sweater Mills, Philadelphia, Pa., knitting.....	5	17	11
Realart Silk Hosiery, Philadelphia, Pa., knitting (night).....	7	17	6
Reid Hosiery Co., Philadelphia, Pa., knitting.....	6	17	6
John Sidebotham, Philadelphia, Pa., loom.....	7	16	11
Timken Roller Bearing Co., Columbus, Ohio, inspecting.....	5	20	13

The above table was compiled by General Electric engineers from reports by plants that had modernized their lighting. "Every employer of people is an employer of eyes," says Matthew Luckiesh, director of that company's lighting research (in *Seeing and Human Welfare*). "Eyes are useless without light,

and human seeing machines cease production when it fails."

A useful precaution is not to depend on guesswork in deciding whether lighting is adequate. As Dean M. Warren ("Lighting as an Aid to Industrial Safety," *Iron Age*, Aug. 4, 1938) puts it: "The human eye is remarkably flexible and can make adjustments over a great range of lighting values. This versatility leads to confusion and bad guesses. A capable workman may produce, for a short time, the same quality of work under 5 foot-candles that he regularly does under 20 foot-candles . . . (but) fast workers with normal vision are enabled to produce more useful work when provided with good lighting, while slow workers and those with subnormal vision receive even greater assistance. In an interesting laboratory test conducted some time ago with two groups of workers, one with good eyes, the other with poor eyes, the first group increased their rate of working 14 per cent when the lighting was raised from 3 to 12 foot-candles, and those with poor eyes increased their rate of working by 22 per cent."

As Regards Air Conditioning.—An air-conditioning system installed in a cigar plant in Philadelphia paid a highly desirable "side dividend" in its effect on the employees' health. Ninety per cent of the plant's 4,000 workers are women. Since the air conditioning was adopted, lost time due to minor illness has been practically negligible—records show attendance to be 99 per cent. Management reports an efficiency gain of 5 to 10 per cent.

Controlled atmosphere in a hosiery mill also cut down absences throughout the year—in summer

because the mill is a pleasant place in which to work, in winter because colds and related sicknesses are less common. In this case, the manager emphasized that, although improvements in quality were an important result, the conditioning was installed primarily to improve working conditions.

In this connection (in view of the many favorable statistics adduced by vendors of equipment) it is only fair to cite results reported by the Metropolitan Life Insurance Company. Careful records were kept of a group of 5,000 clerical workers transferred to a new, air-conditioned office building. "We were unable to observe any difference in the absenteeism due to respiratory diseases," reports the assistant medical director, Dr. W. J. McConnel ("Environment and Employee Efficiency," American Management Association Office Management Series 81) . . . and "so far as our limited experience goes to date we are unable to attribute any improvement in health to air conditioning." The officials of the company, however, expressed themselves as feeling that the expense of air conditioning the new building was justified on the score of increased comfort and efficiency.

Don't Forget the "Simple" Jobs

"Is there a science of shoveling?" Frederick W. Taylor proved there was, even though he had never met a single shovel contractor to whom that thought had ever occurred. It is just another example of how he painstakingly studied all operations, no matter how "simple," to see how he could make the work easier, and therefore increase output.

By first selecting two or three first-class shovelers and paying them extra wages for doing trustworthy work, Taylor found by careful experiment that a first-class man would do his biggest day's work with a shovel of about 21 pounds. Of course, no shoveler can always take a load of exactly 21 pounds—it might vary 3 or 4 pounds one way or the other—but that figure was found to be the most efficient average.

Accordingly, at the works of the Bethlehem Steel Company where Taylor did much of his original experimenting, it became necessary to provide some eight to ten different kinds of shovels, each one appropriate for a given type of material, so as to enable the men to handle an average load of 21 pounds.

A large shovel toolroom was built, in which not only shovels, but also carefully designed and standardized labor implements of all kinds were stored—picks, crowbars, and the like. This made it possible to issue each workman a shovel that would hold a load of 21 pounds of whatever class of mate-

rial he was to handle: a small shovel for ore, say, or a large one for ashes. Formerly, when each shoveler owned his shovel, he would frequently go from shoveling ore, with a load of about 30 pounds per shovel, to handling rice coal, with a load on the same shovel of less than four pounds!

Taylor's restless spirit made him carry his scientific inquiries into sports as well—golf, for example. His biographer, Frank Barkley Copley, tells us that "in applying his scientific mind to golf, he calmly ignored the old traditions and played the game in a highly unconventional way.

"The boldest of [his innovations] was his putter. Taylor's putter had the general shape of the capital letter Y. Directly facing the line from ball to hole, he swung his putter from between his legs, while the forking arms rested against his own forearms; the idea being that in this way the putter was made easier to hold. From the beginning the forking arms were the subject of controversy, and eventually the United States Golf Association passed a rule prohibiting their use."

"As a student at Exeter," says M. S. Viteles in *The Science of Work*, (W. W. Norton, New York, 1934) "Taylor had decided that the traditional method of throwing the ball underhand, used by pitchers on baseball teams, was inefficient, and substituted the overhand form of pitching that has now become customary. When players on opposing teams and umpires complained that the rules failed to provide for overhand pitching, he answered that the rules should be changed, since his method 'got results.' As

a tennis player he used a spoon-shaped racket of his own design to improve his play, and, with his friend Clark, to win the National Doubles Championship in 1881."

Mass Production Methods Applied to "Skilled-artisan" Work

Management of a New York company making a line of high-grade furniture which was never produced on a mass production basis, and which involved much skilled craftsmanship to build, decided to see whether some of the advantages of repetitive production could be applied to its work.

One of the first things discovered was that many of the highly skilled men were wasting time on preparatory chores that could easily be done by lower paid workers. It was further found that, although over 20,000 different pieces might be turned out in a year, many involved closely similar operations, so that, by making time studies on definite jobs over a period of 6 weeks and computing time budgets from these for all similar operations, definite standards could be set up and all workers put on a bonus system.

Rearrangement of departments made a straighter flow of work possible, eliminating wasted time in handling.

Low-priced Work for Low-priced Men.—In connection with having preparatory chores done by low-priced men, Gilbreth had this to say: "When low-priced men bring packages of any kind to higher

priced men to use or handle, the packages should always be painted, stenciled, or labeled with a distinguishing color at one end or on top. This will enable the low-priced workman to place the package in the manner called for on the instruction card with the least thought, delay, and motions. It will also enable the high-priced man to handle the packages with no such lost motions as turning the packages around or over."

"Dress Rehearsals" for Machine Layouts

The manufacturing manager of an automotive plant insists on "dress rehearsals" for new equipment layouts, before connecting gas, air, and water lines permanently. He considers the rehearsal the time to eliminate wasted steps, unnecessary operator "acrobatics," needless handling—and even some operations. Conveyors are represented by wooden dummies, ropes, or wires. Actual parts are taken through the process steps, and every move is noted. In this way, too, the men in the department consider themselves partners in the planning, and usually make worth-while suggestions.

"Incidentally, when considering layouts," this manager said, "you'll find it helpful to consider *only two walls of a room*—one end and an adjoining side. This will help you get rid of the habit of spreading equipment neatly inside a given area, wasting wall space and causing unnecessary walking and movement of material. Concentrate on pushing the layout into a corner instead of spreading it around a room."

Air Changed, Efficiency Up

In one plant, the output of a department on the second floor was found to be almost 20 per cent below that of a similar department on the floor above; yet, the same type of work was being done and the same number of girls was employed in each.

A checkup showed that performance of the second-floor group seemed to be poorest in the afternoon. One of the girls suggested that something be done about ventilation. By the time afternoon came around, she said, the poor air in the place gave her a headache.

A simple, inexpensive ventilation installation—a short run of ductwork and a fan—did the trick. Output of the second-floor group is now equal to that of the other.

Individual Fans.—In another plant, when new wiring was installed, an extra convenience outlet was put at each machine so that workmen could hook up individual fans for comfort.

Social Relationships Are Important

“Too many of our layout men forget some of the important social aspects of work,” complained one industrial-relations expert. “Whenever I see men with blueprints working out some improved arrangement of machines or office desks, I wonder if they are keeping in mind that not only is there a better and worse arrangement of the ‘stage properties,’ there are also better and worse arrangements of the actors themselves.

"Maybe it would be too much to expect planning departments to make layouts in such a way as to preserve groups that had been working together for a long time and had built up a special group spirit—and yet, a little tempering of engineering layouts along those lines would often be well worth the trouble.

"Of course, one difficulty in the way of such planning is that in larger organizations the deciding executives aren't close enough to the workers to realize some of the social problems in group operations—but it is precisely in the large organizations where this sort of thinking is needed. Perhaps the answer is to try to get this kind of group information through first-line supervisors."

The Western Electric Experiments.—Probably one of the most ambitious investigations ever attempted to determine the influence on efficiency and production of social relationships that exist in working groups was that undertaken at the Hawthorne plant of the Western Electric Company. Six years of continuous, careful observation and six years of calculation and analysis went into the study, which was an exhaustive investigation of the production of five girls who were continuously engaged in the repetitive assembly of small electrical relays. These girls were subjected to all kinds of changes in their working conditions. They took six rest pauses a day, worked without rest pauses, worked short hours, long hours, were switched about in their chairs, and given different kinds of relays to assemble. The weather conditions of Chicago subjected them to wide changes in climate.

They came to work on some days tired out after parties, or fresh after a good night's sleep. Their attitudes and outputs under all these variations were carefully recorded and studied.

While the experimental room was devised and maintained by the Western Electric Company, the analytic work was done by T. N. Whitehead and his associates at the Harvard Graduate School of Business Administration, under the direction of Professor Elton Mayo.

The implications of the results of this study with respect to modern industrial and social change were outlined by Professor Whitehead in his *Leadership in a Free Society* (Harvard University Press, Cambridge, Mass., 1936). A comprehensive analysis of the data, together with his conclusions as to their significance, is given in his *The Industrial Worker* (Harvard University Press, Cambridge, Mass., 1938).

Those who want a quick review of the practical results, without studying the data and following the scientific argument, are urged to see *Personnel Journal* for October, 1938. In two articles in that issue—"Unofficial Boss" and "Forty Facts about Workers"—Charles S. Slocombe digests Professor Whitehead's report. The report or the digest will give every executive much to ponder over, with respect to the all-important and too-little realized *little things* that have so much to do with the efficiency of working groups.

Another note on the importance of "little things."—Dr. Herman Schneider used to cite a piano factory where the most discontented group of employees were the girls who assembled the mechanism which transmits the action of the strings when the key is struck.

The girls complained that the work was monotonous, and that they "couldn't get along with Susie," or Mary, or Jane. They were constantly leaving for other jobs. One day the foreman brought a big maltese cat to the department. The girls made a pet of the cat at once—and the change in their attitude toward their jobs was immediate and pronounced.

They Chose Their Own Hours

A Trenton manufacturer had trouble getting certain heat-treating work out on time during the summer. The men complained that they could not stand near the furnaces for stretches long enough to meet their quotas.

"Have you any suggestions?" asked the manager.

The men did have one suggestion that was adopted, and that worked out successfully. Payment was by piecework, and so the men asked to be permitted to choose their own hours, provided they promised to get the work out.

Accordingly, the heat-treating in summer is now done at night and early in the morning. Management agreed to some additional expenditure for extra time clerks and the like to make the odd hours possible. The switch resulted in an immediate increase in production.

Another Example of the Same Idea.—A manufacturer of refrigerating equipment in Illinois performs certain stamping, cutting, and painting operations at night in summer, to avoid the discomfort of hot midday weather. To do this efficiently, management made a

careful study of lighting conditions. Illumination was stepped up, and shadows were eliminated as much as possible.

How It Worked in an Office.—To overcome the usual listlessness and "heat consciousness" of mid-summer, one office manager made a rule for the hot months that permitted employees to go home as soon as their department's work was finished. This aroused tremendous interest in getting the work out, and everyone forgot to complain about the heat. As reported in *American Business*, the mailing department rushed the stenographic department, and that department put tactful pressure on the "bosses" to finish dictation early. The shipping division saw to it that the billing department, credit department, and order department were not holding up orders unnecessarily.

In a Knitting Mill.—During the hot summer months, a knitting mill in St. Louis starts work at 6:00 A.M., which is 2 hours earlier than usual, and quits work at 2:30.

Results from a 6-hour Day

A Baltimore printing plant found that a change-over from an 8-hour to a 6-hour day brought a definite increase in productivity. Under the new plan, there is no lunch hour.

First, it eliminated the second "warming-up" usual with a break in the middle of the day for lunch.

Second, a marked decrease in fatigue resulted from the shorter span.

To keep workers' income the same, a schedule of bonus payments was devised, to stimulate an output for the shorter period equal to what had been attained before.

Results: While some dislocation was experienced at first, before very long it was found that the composing room was registering a 15 to 30 per cent increase in productivity; there was an average increase in efficiency of 20 per cent among linotype operators; and practically all departments showed substantial increases.

The Short-shift Idea Worked in a Food Plant, Too.— In a breakfast-foods plant, the manufacturing process requires continuous, 24-hour operation. For many years the plant had run on three 8-hour shifts. Several years ago, four 6-hour shifts, with the lunch hour eliminated, were instituted, with the following results:

1. Output increased. Under the old setup, worker efficiency had been low at the start of the day, had increased gradually to a peak in about 2 hours, and had again fallen off as the lunch hour approached. In spite of company regulations, employees often quit their stations ahead of time in order to be washed up when the whistle blew. After the 20-minute lunch period, efficiency started low, climbed to another peak (but always lower than the previous peak) and again ebbed as quitting time approached. Under the 6-hour shift, fluctuations in efficiency practically disappeared.

2. Operations require that certain machines run continuously. Under the 8-hour shift, short-shift

relief crews had to be formed to take care of the lunch period. Men always grumbled when they had to serve on this relief crew.

3. Better scheduling of equipment, made possible under the 6-hour shift, resulted in decreased waste.

(This note about the food company was adapted from one of the case studies presented in *Introduction to Industrial Management*, by F. E. Folts and E. C. Robbins. Comments about this book are given on page 56.)

Flat on Their Backs to Get Rid of Fatigue

In the spinning department of a Pennsylvania textile mill, everyone was compelled to lie down flat and relax for 10 minutes out of every 2 hours. As a result, production rose, complaints about tiredness ceased, and workmen were able to earn bonuses for extra performance. Labor turnover in that particular department fell off to zero, showing that workers liked their jobs and wanted to stick to them.

Rest.—"Flat couches without even the smallest pillows are a part of the regular equipment of some of our greatest brain workers. It is considered no disgrace, nor is it worthy of note, if a tired soldier flings himself flat upon the ground to rest. It attracts no attention for an exhausted worker to go to sleep on a hard wooden bench at noontime. But to put a couch in some quiet spot, or even a chair with extra-high, large, flat arm rests, where the same type of rest might be enjoyed most effectively, *this* seems to be radical, and 'might make the men think we had gone crazy.' It might be objected that the worker should

not . . . become so fatigued that this type of rest is necessary. The answer is—if rest in this position will overcome what is almost complete exhaustion, what increases in national efficiency and prosperity may it not cause in overcoming quickly less violent stages of fatigue?" So wrote Mr. and Mrs. Frank W. Gilbreth in their *Fatigue Study* (Macmillan, New York, 1919). Although it was brought out 20 years ago, this little volume is so full of practical, common-sense ideas, that today it can be referred to with profit by anyone really interested in making work easier.

A Specially Fitted Room for Rest Periods.—One manufacturer, by careful observation, determined that efficiency in his plant dropped sharply at 10:00 A.M. and at 4:00 P.M. He therefore inaugurated a rule allowing men to shut down their machines for 15 minutes at those times while they go out to a specially fitted room, through which fresh air passes constantly. There they can do simple exercises, such as chinning on a bar, stretch themselves, inhale a good supply of outdoor air, and return to their work refreshed.

The Rest Idea Plus Music.—In a plant manufacturing underwear, where much of the work was monotonous, a midmorning and midafternoon rest period of 12 minutes was established. Phonographs with amplifying systems were installed on each floor, and popular music was played. The management reported that although 24 minutes were lost each day, the monotony was broken to such an extent that an increase in production was immediately noticed. The girls later asked, and received, cheery music for a few minutes at

the beginning of the day and for 15 minutes before the close.

How Rest Periods Worked in an Office.—In a large government department, a rest period of 10 minutes was established at 10:00 A.M., and another of 15 minutes at 2:30 P.M. These times were chosen because they came close upon the heels of the morning and afternoon peak periods. Comparison of records before and after this innovation showed substantial improvements in quality and quantity of work—even though 25 minutes were taken out of the working day.

"A Smoko" Helps, Too.—Girls in a millinery factory in Auckland, New Zealand, are encouraged to smoke a cigarette each, during two breaks, morning and afternoon. Such breaks, called "Smokos" in New Zealand, are usual in many factories employing men, but only teadrinking had been tried for girls before. Management of the millinery plant found that the smokos have a soothing effect on nerves, reduce headaches, and increase production. Smoke is quickly cleared away by the plant's modern air-conditioning system.

A Rest Period in Every 6 Minutes

An elaborate system of rest periods more than tripled the output of girls folding handkerchiefs, with no increase in fatigue.

Under the old method of folding, the girls were seated at low tables in chairs of ordinary height and worked throughout the day with the only rest period at noon and when they went for supplies or

took back finished products for checking, or when (since they were on piecework) they decided to take a little time out "on their own."

After a thorough study, the following time schedule was adopted (after the best height for the table and the most convenient arrangement of work were decided upon).

Each hour was divided into 10 periods of 6 minutes each. A girl remained seated for the first four periods. During this time she worked 5 minutes and rested 1, so that she had 4 minutes of rest out of the first 24. During the next two periods, when she again worked 5 minutes and rested 1, she stood up all the time. During the next three periods, each still consisting of 5 minutes' work and 1 minute's rest, she could stand or sit, as she pleased. During the last period of each hour she could walk about and talk, or amuse herself as she chose. Counting the last rest minute of period 9, she thus had 7 consecutive minutes of rest each hour. (However, just before noon and just before closing, she worked during the last period, since a long rest was to follow.)

This system is described in *Fatigue Study*. The Gilbreths do not say what method of signals and supervision was used to assure adherence to the strict schedule. Frankly, this procedure strikes me as extremely regimented. However, I include it here because it brings up the idea of scheduled rest periods within each hour, as well as within morning and afternoon.

Hourly Rest Periods plus Meals.—A test was run on workmen laying crossties on a railroad. Average number of ties per man had been 12 a day. With rest periods of 5 minutes each hour, and five meals a day with milk at each meal, this average jumped to 18 ties a day for each man.

Maybe What They Really Need Is a Change

"I believe that when workers think they want 'rest,' nine times out of ten what they really need is a few moments' change in occupation," remarked a plant superintendent. "In our plant, for example, the routine of some of our girls requires that they get up at certain intervals and walk to their next job. The interruption is very brief. A methods engineer wanted to change this arrangement, so that the girls could keep right on working where they were, but I vetoed the idea. I'm convinced that this change between jobs takes the place of a rest. If the girls didn't have this interruption, we'd have to provide a rest period for them—idle, nonproductive time."

This executive's opinion seems borne out by physiological tests. One investigation of this sort seemed to show that fatigue of workers performing repetitive jobs is more effectively relieved by changes to motions of an entirely different kind than by complete rest periods. A change of motion aids circulation, the physiologists say.

"In the physiological sense, work is always being performed," said Dr. H. W. Haggard, of Yale Uni-

versity, discussing this subject in the May, 1936, *Mechanical Engineering*. "Even in the most extreme muscular inaction, the muscles are active and the vital functions of all the organs are carried on continuously. Often the energy directly expended for the performance of light manual tasks is considerably less than that expended by the body during the state of so-called complete rest . . . In this regard, I should put down as the two most potent causes of diminished productivity, ill health and poor selection of supervisors."

The Importance of What's Under Foot

A modern power laundry in Long Island City found that soft linoleum floors were tremendously effective in decreasing fatigue. Almost all the workers are girls and women, and their duties require them to be on their feet all day long.

Said Gilbreth, "It is a recognized fact that a cluttered-up floor under a workman's feet will tire him quite as much as the productive work that he is doing. A smooth-planked floor will enable a bricklayer to lay many more bricks than will earth that has been leveled off."

They Sort 'em Out

In one plant where large numbers of women and girls are employed in mass assembly, the workers are carefully sorted out according to height. The tall girls are together at their own tables, the medium-sized ones at their tables, and the small ones at theirs. In this way, the best chair-and-

table adjustments can be made to eliminate unnecessary fatigue.

A Stitch in Time

An automobile company in Detroit has created a special department in its employee medical service whose responsibility is to catch at the start anything that may be injurious to employee health. Thus, this department's job is to keep an eye on working conditions throughout the plant—for example, to test the air for smoke or fumes, investigate unusually high absenteeisms in any one department or area, and check up on workers who have had "catching" illnesses—and then to eliminate trouble before it becomes serious.

What Is Illness Costing You?—One large electrical manufacturing company found that its absenteeism due to sickness was more than ten times as great as absenteeism due to accidents. The cost of sickness for the year studied was \$900,000 as compared with \$87,000 for accidents. The manager of industrial relations pointed out that a host of indirect costs must always be added to direct costs in making such comparisons—the interruptions involved, the delays and extra costs incurred in getting someone to do the absent one's work, and the errors and spoilage caused by the substitute's lack of acquaintance with the work of the man whose place he is taking.

Hygiene Note

"There's one rule on hygiene I insist upon whenever I'm put in charge of women and girls," says

the manager of a plant where most of the assembly operations are performed by girls. "Every young woman in my employ is entitled to two consecutive days a month absence, with pay—and *these days are of her own choosing.*"

Do You Employ Girls?—Here are some simple things to keep in mind, especially if you're operating a small plant without a big enough margin to invest in "frills." They were suggested by a personnel executive in a New York company. (1) Stress cleanliness—especially of sanitary facilities; (2) have a large mirror in the washroom; (3) if you do not supply individual lockers, be sure to have a place at each girl's station where she can keep her purse; (4) try to provide a room where the girls can go to eat their lunch, if they bring lunches; equip such a room with a radio, and try to have some comfortable reading chairs and a supply of periodicals; (5) if possible, furnish uniforms or, at least, smocks.

They Keep an Eye on Diet

"We want to be sure the girls in our factory aren't doing some harmful 'skimping' on their lunches," said the manager of a plant employing a high percentage of female help. "We therefore give everyone who wants it a bowl of soup, free of charge. The soup is distributed right at the workplace at the start of the noon hour. Special heated trucks are used for transporting it to the various departments from our central kitchen. Thus, girls who don't want to eat at the plant can still have

the soup without taking the time that would be needed if we merely made it available at the plant cafeteria."

Nutritional Advice.—A number of companies now recognize nutritional advice as a necessary part of their plant medical service, and have added a "nutrition adviser" to the medical staff. Employees who, through the medical department's physical examination, are found underweight or in need of special diet care, can be referred to this adviser. Individual conferences can be held with him until the defect is remedied.

'Tween-meal Snacks.—For 10 years an industrial physiologist gave factory workers between-meal lunches in which milk was the major food item. He found that they accomplished more per hour—they worked harder, with greater enthusiasm and less fatigue.

In a Shoe Plant.—Forty shoe workers were divided into two equal groups. One group ate three regular meals a day, and averaged 183 shoes an hour. Each one in the other group was given a glass of milk and a small piece of angel cake in the forenoon and the afternoon. Their average jumped from 170 to 193.

Careful scientific validation of the benefits of between-meal snacks for productive workers is given in *Diet and Physical Efficiency*, by Howard W. Haggard and Leon A. Greenberg (Yale University Press, 1935). On a carefully standardized group of factory operators they demonstrated that a change from three meals a

day to five (with no alteration in the total amount of food eaten) abolished a fall in production in the late hours of the morning and afternoon, which had previously been attributed to fatigue. The frequency of meals on efficiency was studied on 213 subjects, male and female, of ages ranging from four to forty (with most subjects between twenty-one and thirty). The majority of the adults were factory operatives in a tennis-shoe plant in southern New England. The advantage was found to lie distinctly with the five-meal-a-day schedule. Many of the data in the book are also developed from studies of individuals as well as groups, under carefully controlled conditions.

"So far as we have been able to discover," say these investigators, "there is no physiological reason for the common choice of three meals a day. Rather it is a convention that has grown out of the factory movement . . . In spite of the inefficiencies of this schedule there had followed, as is usually the case in such matters, a rationalization that has given the three-meal regimen the weight of a cultural, although distinctly unphysiological, pattern."

Second Breakfasts.—Second breakfasts are probably much more common among office workers than most office managers like to admit. In the *Chicago Times* for Sunday, May 28, 1939, an enterprising reporter ran a feature story about the second-breakfast habit in the Loop. He found that many executives winked at it because they liked a cup themselves around 10 or 10:30! Said one girl, "We used to have to slip out. The company really tried a couple of times to stop 'second breakfasting.' But they gave up, and now allow everyone 15 minutes." "Our com-

pany," said another, "doesn't mind if we indulge in a second breakfast so long as we don't disappear before 10 o'clock. A good 85 per cent of the 150 people in our office are 'second breakfasters.'"

Earmuffs to Muffle Noise

Unnecessary racket usually turns up on the wrong side of the ledger. In England, when ordinary earmuffs were supplied to workers in noisy weaving sheds, efficiency was stepped up by as much as 12 per cent. One important result was a noticeable calming of irritable persons.

And What's Wrong with This Idea?—One university fitted up a special room where faculty members may retire for study and reflection. No one is permitted to talk in this room and, aside from a matter of life and death, no one may be disturbed. Nor is anyone permitted to bring in brief cases of rustling papers or other types of reference material, such as charts and maps, whose use might in the slightest way disturb other occupants of the room.

At the New York executive offices of a large baking company, a special room of this sort was fixed up for executives, with the proviso that no one might bury himself there for more than an hour at a time. One large office tried out the scheme of not permitting telephones in certain offices to be rung during a certain hour each day. This rule was later discontinued because of misunderstandings that arose in cases of people calling in from the outside. However, a plan for reviving it in a modified way is still being considered.

Music While They Work

A musical-reproducing system serves dinner and dance music on a night-and-day schedule to long-shoremen and other dock workers at a pier in Brooklyn.

Pier employees number as many as 400. The steamship company operating the pier decided these men would be happier, and, by weaving rhythm into their work, probably less fatigued, if music were supplied. A great many laborers in that section are Italian—a nationality whose love of fine music extends through every level of society.

The music is wired at a small fee from a central station in Manhattan whose business is to supply music to hotels, restaurants, and clubs. Recordings, made especially for the pier company, are devised to suit the particular needs of the employees. A special study by the music company has determined the psychological time for "lift" music and other types.

Additional Notes on the Same Theme.—A motor company in England introduced a system of broadcasting records to employees during working hours. The experiment proved so popular that management put loudspeakers in all workshops where the noise of machinery did not make it impossible to hear the music.

At a Trenton Plant.—Here a radio was found to reduce fatigue. In the afternoon, when bodily energy

tends to fall off, employees are permitted to turn on a radio and to have it play for the rest of the day.

Color Stimulated Neatness

The management of a shoe factory found that painting its equipment in pleasing colors, instead of in the usual blacks and grays, had a remarkable effect on the efficiency of its employees. They were more careful about neatness in their work and in their own appearance. Half of the women operators purchased good-looking smocks to "fit in with the surroundings."

Contrast.—Illumination engineers emphasize the importance of *contrast* in producing good seeing conditions. Where articles being worked upon are black or dark-hued, finishing equipment in light colors will usually greatly help the operator to see what he is doing.

"Restful to the Eyes."—Yellow machinery enamel is used on all machine and tool equipment in one pressed-steel plant. This color was adopted because of its good light-reflecting qualities, and because, even though it is a light color, it does not require constant cleaning to keep machines presentable. Although no actual scientific tests were made, employees reported that the color is restful to the eye and creates a more satisfactory working environment than black . . . At a machine works in Michigan, benches, bins, and stools are painted olive green. According to the factory superintendent, this color is restful and easy to keep clean.

Another Practical Use of Color.—Color can be seen more quickly than shape. For example, in sorting photographic snapshot prints into batches after printing, developing, and drying operations, it was found desirable to use inks of different colors for stamping identification numbers on the back of the paper before printing. Sorting by color of ink is much faster than sorting by key letters or figures.

Keep Surprises Down

A man in charge of all maintenance in a large manufacturing plant insists on keeping a clear record of every kind of mishap and breakdown, no matter how trivial, as well as a detailed account of the way emergencies are handled. Now a big and ever-growing book in his office, carefully indexed, shows how hundreds of troublesome situations have been handled, and by whom.

"My men have to be on the alert for any kind of trouble that might develop," he says. "A long time ago I found that the best way to make a trouble-shooting organization function calmly and smoothly is to drill into every one of my gang this motto: *Surprise is the worst enemy of good management.*"

APPLICATION CHECK POINTS

1. How good are the seeing conditions in your departments? How do actual foot-candle levels compare with "standard practice" for those types of operation?
2. If air conditioning is out of the question as too costly, where would comparatively simple ventilation changes improve working conditions?

3. In view of Taylor's results with the "science of shoveling," what simple operations under your jurisdiction are worth investigating for possible improvement?

4. What chores done by high-priced men under your jurisdiction could be performed equally well by lower paid workmen?

5. Where are layouts or machine setups causing "operator acrobatics"? Are "dress rehearsals" of equipment possible before final installation, to avoid such poor arrangements?

6. With your type of workers, how important is it to preserve certain groups intact when re-layouts are made? Is the "social value" worth some slight departure from the most efficient engineering setup?

7. Where in your departments are operations such that hours could be changed to suit workers' convenience? What additional clerical and other costs would be involved, say, in working during morning and evening hours in hot summer months?

8. In your production departments, at what hours do peaks in output occur? What are the causes of the "valleys" in such an efficiency curve? Would short shifts, without lunch hours, be advantageous in your type of business?

9. Have you tried scheduling definite rest periods in your production departments?

10. What element of periodic change could you introduce into your most monotonous operations? Would such a change suffice in lieu of a rest period?

11. How fatiguing are the floors in your operating departments where workers are on their feet all day

long? Where have you noticed floors especially cluttered up?

12. Would sorting out your mass-assembly and test operators by size make possible a better adjustment of table and chair heights for minimum fatigue?

13. Are your departments largely staffed by women and girls? What special hygienic precautions are necessary under such conditions?

14. Have you tried the distribution of "between-meal snacks" in your production departments? How satisfactory are eating facilities for workers in your company's neighborhood? Is it a common practice for employees in your organization to take a snack "on the sly"? What would be gained by giving official permission?

15. Are your workers allowed to smoke during business hours? If not, do you think you are losing output by workers "sneaking" smokes? Would a scheduled intermission—a "smoko"—for this purpose help?

16. How noisy are operations in your various departments? Is noise detracting from efficiency? What relatively simple changes can you suggest to better this condition?

17. Have you tried out the effect of music in your production departments? What type of operations under your jurisdiction are definitely rhythmical? Even where rhythm is not involved, would music—say, near the close of day—help to banish boredom?

18. How expensive would it be to add color to some of your workplaces? What operations might be helped by heightening the color contrast between equipment and items being worked on?

CHAPTER VI

MAKING WORK SAFER

Fortunately, no one today needs to be "sold" on the importance of safety—safety not only from a humanitarian point of view, but also from a strictly selfish management point of view. Accidents cost money.

It is impossible, of course, to estimate accurately the total bill presented to industry each year for accidents. However, records that are available show that the figure must run into what are, for most of us, astronomical proportions. Thus, W. H. Cameron, Managing Director of the National Safety Council, Inc., stated that in three items alone the 1937 cost of occupational accidents in our country totaled \$660,000,000. These items are: wage losses, \$510,000,000; medical expense, \$40,000,000; and overhead cost of insurance, \$110,000,000.

But that is only part of the cost—the smaller part. Based on an investigation of 5,000 industrial accidents, the Travelers Insurance Company estimated that incidental costs total about *four times* the more direct costs. A few of these incidental costs include: cost of time lost by employees who stop work out of curiosity, sympathy, or to assist the injured; cost of time lost by foremen and other executives to assist the injured, investigate the cause of the accident,

arrange for production to be continued, and to select and train new employees; and cost in loss of materials and damage to machinery or other property.

The relation between fatigue and accidents is well established—people don't respond so quickly to stimuli when they are tired as when they are feeling fresh and alert. They grow careless in the operation of hazardous equipment, or don't jump out of the way rapidly enough when someone warns them by sight or sound. Well established also is the relationship between seeing conditions and safety.

In 1934 the National Electric Light Association (now the Edison Electric Institute) conducted a careful nation-wide survey on lighting conditions in 1,907 plants in 18 industries. Among other data collected were reports on accidents. It was found that 272 accidents were directly attributable to poor lighting conditions. Actual accidents traceable to poor lighting were probably much more numerous, since not all the plants were willing to report on this item, nor were figures included for accidents indirectly caused by inadequate seeing conditions.

The thing that should always be kept in mind about accidents is that the occasional accident is usually a symbol of inefficiency existing over an extended period. For example, the careless worker who was hurt must have been careless for some time *without* being hurt—but most likely not without costing the company real money in terms of slip-

shod work and errors not immediately detected. And the piece of work tumbling from a truck and hitting a man's foot is only a dramatic reminder that many pieces of work have probably been tumbling from trucks *without* hitting someone's foot—but, again, not without costing someone wasted time and energy. It follows, then, that educational work in safety does more than prevent accidents—it steps up efficiencies all around.

Happily, the industrial accident picture in this country is definitely improving, thanks to the widespread acceptance today of the fact that accidents do not happen, but are *caused*. Managers are convinced that production and safety are interdependent, and that the causes of accidents are tangible and specific—that they can be determined by investigation, and, once found, removed by practical methods within the power of executives and supervisors.

Machines and hazardous processes have been safeguarded, safer tools and equipment, and protective clothing have been provided, and, most important of all, workers are being taught and constantly reminded to follow safe practices.

Comparing 1937 with 1930 (a year with comparable production conditions) there was a drop of 30 per cent in the frequency and 25 per cent in the severity of industrial accidents, according to the National Safety Council. The quarter of a century, 1913 to 1938, saw a reduction of 44 per cent in fatal industrial accidents. (In 1913 industrialists were just emerging from the

belief that accidents were acts of God and the price they had to pay for industrial progress.)

In connection with this country's record of decreasing industrial accidents and the remarks made above as to the relationship between seeing conditions and safety, it will be interesting to compare the chart on page 122 with the figures just given. In the period since 1930, standard levels of illumination in plants, stores, and other workplaces have risen steadily. As indicated on the chart, average foot-candle levels in use have increased about 35 per cent—several hundred per cent for some operations.

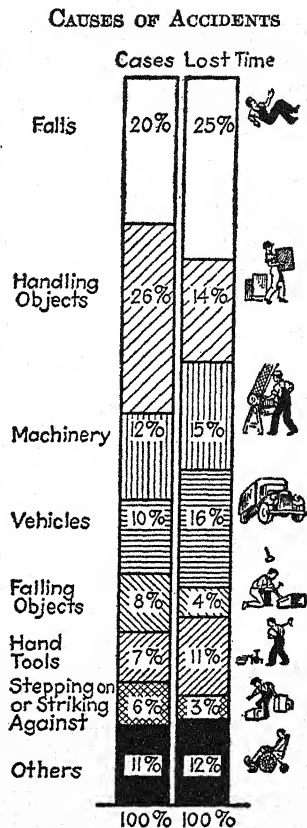
The grouping of examples on safety into a separate section here is, of course, purely arbitrary. As has already been pointed out, doing work "the one best way" from the point of view of efficiency is usually equivalent to doing it the safest way too, and many of the ideas contained in preceding sections resulted in improved safety conditions as well as in more rapid or more accurate work.

With the interest being shown in safety work today, many examples of what specific companies are doing were at hand. However, to condense the maximum number of ideas into the given space, many accounts of interesting contests, awards, and the like were omitted, on the assumption that an indication of a single type would suffice to set forth the central idea in all of them.

In view of the many articles on safety subjects appearing in the technical press, I do not believe it necessary to append extensive bibliographic informa-

tion here. Information on how to set up safety committees, conduct contests, and the like can be obtained from—among numerous sources—the National Safety Council, Inc., 20 North Wacker Drive, Chicago, and the Metropolitan Life Insurance Company's Policy Holders' Service Bureau in New York City. Many ideas in this section were obtained from literature of these two organizations. Informational and statistical material is available from the U. S. Department of Labor, and, as regards mining, from the Bureau of Mines, U. S. Department of the Interior. Many states also conduct active industrial safety programs.

The chart on this page is offered for its value in arousing comment in discussion groups. It was adapted from a similar chart prepared by the National Safety Council on the basis of 1937 statistics.



Falls cause more lost time than any other class of compensatable occupational accidents. This chart shows various kinds of accidents, in terms of frequency and amount of compensation involved. It was made up from the reports of five state labor departments. (National Safety Council, Inc.)

Because safety work is often concentrated in production departments, and *office hazards* are consequently overlooked, the list below is included. It was prepared by the National Office Management Association.

CAUSES OF OFFICE ACCIDENTS

1. Pushing and crowding at entrance doorways, on stairs, and on elevators.
2. High heels catching on stairs.
3. Fooling, running, and scuffling.
4. Walking fast around blind corners of aisles.
5. Walking into glass door panels.
6. Leaving loose objects on floors, causing people to fall, trip, or slip.
7. Leaving sharp objects on floors, chairs, and desks.
8. Leaving desk and file drawers, and safe, locker, and closet doors open.
9. Lifting loads improperly or loads that are too heavy.
10. Putting objects on shelves insecurely, or piling them too high.
11. Using chairs and boxes instead of a ladder.
12. Tipping chairs back too far.
13. Straining muscles and catching fingers when opening and closing windows.
14. Throwing objects out of windows.
15. Throwing burnt matches, cigarette and cigar butts, and broken glass, into waste baskets.
16. Throwing clips or shooting them with rubber bands.
17. Not covering the points of pins when pinning papers together.
18. Putting papers on sharp-pointed bill files.

19. Carrying pens and pencils with points exposed—in hand or pocket; carrying pens and pencils in the mouth.

20. Keeping sharp objects scattered through desk drawers.

21. Using knives, scissors, and shears without due care.

22. Cutting fingers and lips on sharp edges of paper.

23. Putting fingers close to electric fans while they are in operation.

24. Stretching electric cords across aisles.

25. Reading correspondence while walking.

Safety from the Very First Day

In discussing safety, an employment manager emphasized the fact that the day a new employee is hired is the most favorable time to impress upon him the fact that the company is interested in accident prevention and demands safe operation from its employees. This executive takes advantage of the initial interview to describe the methods which the company is following in its effort to prevent accidents. The general regulations of the company, including all safety rules, are explained, and a copy of these regulations is presented to the new employee. Special emphasis is placed on the rule about promptly reporting all injuries for treatment.

Posters for Newcomers.—Employment departments of many plants have signs conspicuously posted at the employment office, to impress applicants with the fact that safety is a part of every job. For example, the sign at the employment office of one paper company reads: TO MEN SEEKING EMPLOYMENT—UNLESS YOU ARE WILLING TO BE CAREFUL TO AVOID INJURY TO YOURSELF AND TO FELLOW WORKMEN DO NOT ASK FOR EMPLOYMENT. *WE DO NOT WANT CARELESS WORKMEN IN OUR EMPLOY.*

An Important Point to Remember.—Accidents to new employees are due not so much to carelessness or thoughtlessness as to lack of familiarity with hazards and working conditions. Another factor is their nervous desire to work as fast and as well as others

who have been on the job longer. *Education and supervision are the only effective safeguards against such accidents.*

Companies operating apprentice-training courses have exceptional opportunities for instructing new employees in safety. Apprentices don't, as a rule, have to unlearn wrong safety habits, as a worker must often do who has simply "picked up" his experience in shops where safety was not emphasized. An experienced instructor, furnished with a copy of the plant accident records, can instruct new employees in the safe way to do each job while teaching them particular operations.

How One Company Emphasizes Safety to the New-comer.—When he is hired, he is given a manual outlining the company's safety regulations. On the second page of this booklet, which is perforated, appears this statement: "I have received a copy of the company's safety rules and I hereby agree to read and observe them. I also agree to attend safety meetings when notified of the place and the date." The workman is required to sign this page, which is torn out and filed in the employment office.

In another company, after a new man has been at work for a few days he receives a personal letter from the superintendent, who tells him of the excellent record made by his department and emphasizes the need for safe work. He is also encouraged to send in safety suggestions. A week later the superintendent has the new man come to his office for a personal talk, at which time the causes of the lost-time accidents of the previous year are explained.

"Safety Eyes" at Least One Day a Week

The vice-president in charge of production of an automobile company told his plant managers to try the following:

"Be a safety engineer one day a week. By that, I mean walk through every one of your departments (and don't let any business, no matter how important, interfere with this practice), and look at everything through the eyes of a safety engineer. Try not to think of yourself as a plant manager—you're an outside safety inspector for the time being. It's surprising how many unsafe items you'll catch in that way—operations and hazards you've been looking at every day in the week without really noticing them."

Dramatizing Safety

One company maintains an illuminated dial, giving the foreman's name, the department, and the safety record of the department for a definite period. If this department can't keep its place during the next period, the dial is moved to the new department which is at the head of the list.

To excite and maintain interest in accident prevention, most large companies find it advisable to maintain a trophy or offer an award. Often special contests can be staged to snap up interest (see the item "What's Wrong?" on page 169).

The reverse idea—using some device to call attention to a poor record—has also been found effective,

as pointed out in the item headed "Willie Everlearn," on page 172.

Individual rewards for exceptional records made by a department also serve to stimulate interest. A lapel button, a watch fob, a sack of sugar, or any slight recognition, is recommended in reports on safety by the Policy Holders' Service Bureau of the Metropolitan Life Insurance Company.

"But the thing to keep in mind about monetary rewards," said one executive, "is that although they can be increased at any time, any *decrease*, no matter how slight, will seriously handicap your safety work."

Insurance as a Safety Incentive.—A long-distance trucking company in Virginia carries a generous insurance policy on every driver. However, if a driver is involved in a serious accident, he must thereafter pay the premiums himself to keep it in force.

Keeping up the Day-by-day Interest in Safety

As a means of stimulating day-by-day interest in safety, a New Jersey bus company posts bulletin boards in garage terminals. The name of each chauffeur is recorded there. For each week of the current month during which no accident is charged against the operator, a white star is placed opposite his name. For each week in which one or more accidents are charged to his record, a red dot is posted. The bulletin is changed monthly, but a cumulative record is posted, showing credits and demerits to date. A permanent Roll of Honor is

also posted, containing the names of operators whose records remain clear of even the most minor accidents during the year.

Unreported accidents are penalized by severe discipline. In order to avoid discrimination or disputes, any accident reported, no matter how slight it is or on whom the ultimate responsibility rests, is counted as an accident for purposes of recording credits and demerits.

For every week in the year during which the operator has no accident of any kind, he receives a bonus of \$1, paid in a lump sum just before Christmas.

Don't Forget the "Runners-up" in Safety Awards

In connection with trophies and other awards for perfect safety records in a company manufacturing explosives and industrial chemical products, special attention is paid to "runners-up" to keep their interest from flagging. Thus, a specially engraved Certificate of Merit is presented to every division which, for a given period, made a splendid effort but came short of achieving a perfect record.

He Insists on Accident Facts

The personnel director of a chemical manufacturing plant considers a *scientific attitude* about safety more important than safety slogans, posters, and campaigns. He believes in tying up safety with a study of human nature, environment, and behavior motives. Here are some of the questions he keeps asking himself:

On what day of the week do most accidents occur?
Are new employees in accidents more often than old?

At what hour of the day are accidents most frequent?

Does the weather have anything to do with accidents in our plant?

What plant locations seem to be most accident prone?

What kind of injuries are most common in this plant?

It is such factual data, he says, that are essential in keeping accidents to a minimum, and foremen should constantly be drilled to gather these clues to the "why" of accidents.

Just Who Has the Accidents?—Do you know which of your employees are most accident prone? An insurance company found that the entire accident experience of an organization usually involves a comparatively small portion of the whole operating force.

In a study of the accident experience of a street railway, the insurance company found that 30 per cent of the motormen were involved in 44 per cent of the accidents. In a group of taxicab companies, it found that 25 per cent of the accidents resulted from actions of only 10 per cent of the employees, whereas 25 per cent of the men had no accidents at all.

Although experience has proved that "mass education" in accident prevention produces favorable results, this insurance company is now focusing attention on the desirability of applying individual treat-

ment to those really responsible for high or increasing accident rates in a given organization.

Weekly Safety Summary.—The operating executive of an automobile company insists that a summary of accident reports by departments come to him weekly. This practice keeps him in constant touch with safety performance, and impresses superintendents and foremen with the fact that the matter has his personal attention. The records also often show that the executive should send for a certain foreman in order to discuss the accident record of his men.

Make Safety Statistics Real

A safety engineer made this point with respect to getting the importance of safety across in the smaller plant. "Talking about lost-time accidents to the men is a poor way to go about it. Take in every little banged finger and scratched face and bruised toe on which you can get a report. Take in the *near* accidents too, if there is any way you can get a report on them. The wider the territory you cover, the more meaningful to your employers will be your statistics. For purposes of arriving at an indication of severity of accidents, figure an arbitrary fifth of a day lost to each no-lost time case. That won't be far from a fair figure. At least, it will be better than drawing an arbitrary line between lost-time and no-lost-time accidents."

Do You Use the Word "Careless" Carelessly?

A power company in Louisiana arranged a series of weekly meetings of foremen and assistant fore-

men to analyze the reports of accidents that had occurred during the past year. The purpose was to make a sincere attempt to determine causes and to develop ways to avoid accidents in the future.

One of the first points brought out by these meetings was the extremely loose use of the word "carelessness" in ascribing causes. Apparently there had been a tendency to use that term because it served to remove all blame from the foreman. Analysis soon showed that, in addition to "carelessness," there was usually a great deal more that had to be said before a remedy could be suggested to prevent "repeats."

A rule by the company, prohibiting use of "careless" unless accompanied by very complete additional information in accident reports soon led to the accumulation of much more reliable data. And, better still, it made the foremen much more careful in their safety supervision, since they knew that complete information on all accidents would be insisted upon.

Foreman Responsibility.—Many companies hold the foremen and supervisors strictly accountable for the promptness with which injured employees report to the first-aid room. Result: Employees quickly report even slight injuries, and the danger of infection is greatly lessened.

Special Safety Observers

In one steel company, superintendents are required to appoint from 5 to 10 per cent of their men each month as special safety observers. They

must report to their foremen on unsafe practices or conditions.

Since these men are selected according to plant layout, as well as according to the kind of work they do, they are, as a group, likely to be familiar with every type of job going on at a given time. A trained safety engineer is assigned to get in touch with each of them periodically.

In another company, the foreman appoints a secret Unsafe Committee each month, consisting of three members. No one else knows the make-up of this group, and so can never be sure that some slip-up of his went unobserved. At the department safety meeting, the chairman of the Unsafe Committee is called on for his report.

Said one industrial executive: "Safety committees can perform a vital and useful function. However, keeping a committee alive and functioning effectively is a difficult job that cannot be done without constant attention by management. Real work must be given the committee to do. It should have some real authority. Its suggestions should be acted upon thoroughly and promptly. No safety committee will amount to anything unless it has vital work to do, is held responsible for that work, and is given credit for its accomplishment."

They Concentrate on a Few Hazards at a Time

During one whole year a large plant concentrated on reducing some one or two special forms of hazards each month. Thus, in June the hazards

of scaffolding erected with poor lumber and of makeshift ladders were emphasized.

The management feels that concentrating on a few hazards at a time, on an organization-wide basis, produced results that could not have been obtained by the usual approach.

Use the Advertising Formula in Safety Posters

"The trouble with many safety posters," said the superintendent of a textile plant, "is that they do not stimulate active thinking on the part of the workers who look at them.

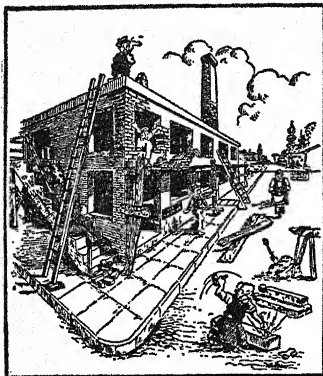
"Safety posters should be judged by advertising standards. Advertising strives to deliver an unbroken series of favorable impressions for a product or an idea. Safety posters should have the same objective. To accomplish it they should, of course, be changed frequently.

"When we prepare posters for this plant, we keep telling ourselves that advertising is the art of causing others to KNOW, to REMEMBER, and to DO, and that the same formula should be applied to safety education."

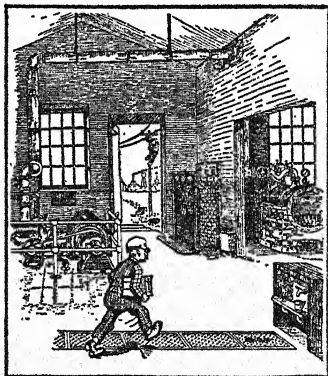
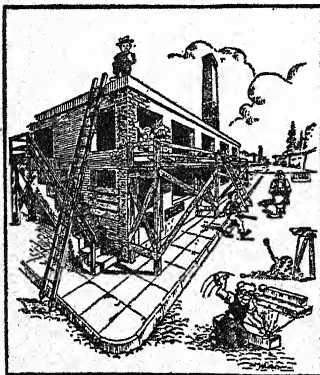
What's Wrong?

A chemical company was very successful in stimulating and sustaining interest in safety with a Safety Poster Contest entitled "What is Wrong in This Picture?" The idea was the result of a poster submitted by a draftsman in one of the

WHAT'S WRONG WITH THESE PICTURES?



CORRECTED



Contest posters like these started thousands of employees looking for hazards and applying the lessons portrayed. (Courtesy E. I. Du Pont de Nemours & Co., Inc.)

Key to the hazards shown in the upper left picture: (1) broken post under stairway; (2) broken riser on stairway; (3) broken handrail on stairway; (4) no midrail on stairway; (5) no midrail on platform at top of stairway; (6) no toe board on platform on top of stairway; (7) material piled on stairway; (8) material piled at foot of stairway; (9) no safety feet on large ladder; (10) large ladder improperly placed; (11) scaffold in poor condition; (12) broken upright on small ladder; (13) no safety feet on small ladder; (14) material improperly piled on

company machine shops, who portrayed, in cartoon style, a number of unsafe practices and conditions he himself had observed.

In preparing the contest posters, the company records were searched for the chief causes of major injuries. As a result, it was decided to call attention to 104 practices or conditions found to be most troublesome. Two examples are shown in the accompanying illustration.

A poster was given to each employee, with instructions to "draw a circle around each of the things you think is wrong in this picture, and explain why you think so on the back."

Cash prizes ranging from \$5 to \$50 were offered. Of approximately 15,000 eligible employees, 11,000 took part.

Through this contest the workmen learned how to recognize unsafe practices and conditions, and how to correct them.

scaffold; (15) man smoking—fire hazard; (16) dinner pail on top of building; (17) protruding nails; (18) chipping without goggles; (19) broken shovel handle; (20) broken wheelbarrow; (21) unprotected window opening along stairway.

Key to the hazards in upper right picture: (1) tools scattered on floor in foreground; (2) floor plate in foreground not in place; (3) employee in foreground not watching where he is going; (4) unguarded belt and pulley on generator set; (5) broken pole just outside of door; (6) employee working on pole without life belt; (7) no mat in front of switchboard; (8) dinner pail behind the switchboard; (9) rear of switchboard not enclosed; (10) defective waste can—fire hazard; (11) waste on floor near waste can—fire hazard; (12) improper location and container of oil supply—fire hazard; (13) oil from barrel dripping on the floor; (14) boiler tools scattered on floor; (15) coal lying on floor in front of boiler; (16) broken door on fire box; (17) planks lying on top of boiler; (18) steam line supplying steam to the small engine not supported.

Willie Everlearn

"Willie Everlearn" is a glass boy who stands at the entrance of a plate-glass factory in Toledo. Whenever a workman is injured, Willie Everlearn is bandaged in the place on his body where the man was hurt. A card is hung on his hand, telling the nature of the accident and the name of the employee involved.

No worker likes to see his name paraded by Willie—especially if the mishap was his own fault. That fact, together with the constant reminder about safety that Willie furnishes by just being there, makes Willie Everlearn an effective accident reducer.

The Same Idea Applied to a Group.—In a steel plant a white elephant, made of concrete, is awarded to the department with the most accidents. If there are no departments with lost-time accidents for the month, the plant manager keeps the unwelcome mascot in his office.

Compulsory Safety Did the Trick Here

The safety engineer of a metalworking plant checked up on the cost of eye accidents and found that the average cost per year, over the preceding several years, totaled \$1,668. At that plant at the time, the wearing of goggles was compulsory only on obviously dangerous jobs.

When the safety man issued an order that the wearing of goggles would be compulsory on ALL jobs, the yearly cost was cut to \$88!

Safety the Best Way

Girl workers will wear goggles if they *have to*—but they know very well that goggles don't improve their looks. Realizing this, as well as the fact that goggles are a nuisance for girls to put on and take off ("these things get in my hair!"), one plant superintendent decided to do away with the goggles entirely and secure the same eye protection in some other way.

The operation in question was spot welding small assemblies. Panes of clear glass, mounted in metal frames in front of the work in such a way as not to interfere with the motions of hands and arms, now protect the girls' eyes from welding splashes.

As an added feature in his campaign for eye protection—this one aimed at reducing eye fatigue—he put a special spotlight mounted on an adjustable arm at each girl's workplace, to direct a small circle of bright light directly on the work.

Study the Motion Path for Safety

An engineer in an Eastern plant manufacturing hard-rubber products has for many years preached the idea of applying motion study to safety. His motto is "Study the motion path" when considering ways to safeguard an operation. If you don't, he says, you're likely to install guards or prescribe safety methods that *interfere with the natural motions required by the job*.

Result: As soon as your back is turned, the operator removes the safety device or goes back to unsafe methods in order not to cut down on his output.

This idea is developed by William R. Mullee in *Factory Management and Maintenance* for October, 1937. Here are some of Mr. Mullee's safety principles:

1. *The hand is the poorest holding device.* For example, a drill-press operator holds a piece fast to the table with the left hand and brings down the drill with the right. Halfway through, the drill binds and whirls the metal piece around, causing a nasty finger injury. Prescription: A fixed jig or vise to clamp the work—not only for safety, but to free the left hand to move pieces.

2. *Confine motions to normal working area.* For example, on leather-embossing presses the helper must straighten out the leather. Sometimes he tries it before the embosser has stopped the press. The most effective way to get him to use a stick is to put a wide table on his side of the press, so that he cannot reach in and do his work by hand. The dangerous situation is beyond his reach.

3. *Save the "get ready."* Putting on goggles is "get ready." Taking them off is "clean up." Both can be saved by glass guards at the work.

4. *Minimize handling.* Jigs and fixtures are often tapped for air ejection, to keep operators' fingers out of trouble. At one plant, all punching of hard-rubber pieces from sheet has been changed to hollow dies, and pieces are ejected through the top of the die.

When Employees Don't Speak English

One company distributes a safety booklet to foreign workers, printed in their own languages. Each worker must take the book home and read it; if he cannot read, he must get someone to read it to him. Later, he goes through an examination. If he knows what is in the book and can intelligently tell what the safety principles are, he is given a safety button.

Safety in a Lab

In a chemical laboratory, three cases are attached to the wall, with a fire blanket in each. The blanket is folded lengthwise and attached to a cord looped at one end. The door of the case opens freely. If a man's clothing catches fire he can place his arm through the loop, and by turning, completely wrap himself up.

In this same laboratory there are three conveniently located showers, each with a chain suspended to within easy reach. These are for quick drenching if a man should be splashed with acid.

In a Pittsburgh Research Laboratory.—Here light beams and phototubes ("electric eyes") are used to "fence in" certain dangerous equipment. A person who unwittingly approaches the hazard interrupts a light beam, causing special electrical relays to shut off the power.

Keep on Asking Them

A large rubber company keeps tabs on plant hazards from the bottom up, as well as from the top down. Every employee is periodically required to answer a questionnaire which asks him to name the three things in connection with his job that he considers most hazardous.

A steel company periodically distributes safety questionnaires requiring written answers, and grades them, as one would grade examination papers.

Camera—Action

A West Coast oil refinery has found the use of motion pictures to be an effective method of teaching safety. Safe practices are filmed for guidance, but the company found that the most dramatic way to get the lesson home is to show everyone "the scene of the crime" after a serious accident. Conditions and equipment are rearranged as they were at the time of the trouble, and the whole episode is re-enacted and filmed. The movie is then shown at group meetings, and a safety man points out what should not have been done when the original accident occurred.

How a Freight Transport Company Does It.—This same idea of re-enacting accidents is carried out in a different way by a St. Louis company that carries on an extensive warehousing and freight-transport business. At its "traffic school," every important accident is re-enacted on a large table with the aid of miniature

trucks, crossings, cars, images of pedestrians, and the like. The chauffeur involved must clearly describe how the accident took place.

A Pittsburgh steel company demands simple drawings showing the position of operators with respect to machinery before, during, and after an accident.

Safety Violators Tried by a "Court" of Peers

A feature of the safety work at a Richmond, Va., motor transport firm is its "traffic court." There 12 drivers deal out fair treatment to any fellow employee involved in an accident or guilty of violating a traffic rule or company regulation. These men are replaced, as vacancies occur, by vote of the entire body of drivers. The judgment of the court is taken as final in all matters under its jurisdiction, and it is not interfered with by management. The men like this privilege of being judged by their peers, and the company has found that the court dispenses justice in a way that could hardly be improved.

Carrying Safety Home

When the head of a certain foundry arranges for his periodic moving pictures or illustrated lectures on safety, he impresses upon all his employees the fact that their families are invited to the show. He has found that carrying the safety message right into the home greatly increases its effect.

In this connection, many companies have found it helpful, at least once a year, to hold large mass meetings of all employees and their families on accident prevention. Sometimes these meetings are conducted in the summer, in the form of outings; sometimes in winter, in theaters or large halls. In every case, the value of carrying the safety lesson to the wife and kids as well as to dad has been demonstrated.

Safety after the Whistle Blows.—As an experiment, an Eastern company organized in one of its plants a safety program under the slogan "Safety after the whistle blows," which urged all employees to take the safety habit home with them, and to be just as careful about possible injury from falling off a ladder while hanging up grandpa's picture or stumbling over the lawn mower in a dark garage, as they are around the plant machinery. The company recognized the fact that loss of services of an employee injured outside the factory gates often cost it more than an accident occurring inside the plant.

Results: The plant in which the program was conducted forged to first place in the safety competition among all plants. Thinking about safety wherever they were apparently made the men instinctively more careful at work.

Some Safety Postscripts

A comprehensive safety program is largely made up of countless little things. It's a good idea to jot them down as they occur to you. As a starter, here are a few that will serve as a postscript to this section:

Safety at Doors.—At a steel plant, doorways adjacent to tracks or roadways have “cat tails” to remind those passing through of possible danger from approaching yard engines or other equipment.

Reminders.—One large company uses a green safety sticker on all plant correspondence. A “pie chart” divided into 12 sections shows what safety features will be stressed each month.

A Hint from a Soldier.—In a recent conversation, a military commander dropped an important hint that can be applied to industrial emergencies. “In military control,” he said, “when a soldier is under emotional stress, commanders often find that giving a routine command will help put him back into a more normal frame of mind. His routine response stimulates a normal attitude.”

About Safety Posters.—“Don’t forget to put into your safety notes some place,” said a safety engineer discussing these items, “the all-important point about *changing safety posters frequently*, in order to keep up worker interest. It’s a simple matter that cannot be repeated too often.”

Make Safety Rules Specific.—“For safety rules to be effective,” one plant superintendent pointed out, “they must be specific. Each rule should cover only one particular item. If many hazards are to be covered, separate rules for each should be made.” (Compare this item with the one headed “Clear as Mud!” on page 229.)

They Color the Danger Points.—One plant has colored crane hooks and other dangerous machine elements bright yellow, to make them stand out.

APPLICATION CHECK POINTS

1. What are you doing to impress safety upon the new employee at the very start? Does your company have safety placards in the employment office? Is safety an important part of your company's apprentice-training course?

2. How are you dramatizing safety to your workers? What type of contests would appeal to the class of workers under your jurisdiction? What do you consider the advantages of individual awards, as against group awards? Prizes as against monetary awards? How do you recognize "runners-up" in safety contests?

3. What portion of your time do you set aside each week to devote solely, without interruption, to safety?

4. Do all your workers get a safety manual? How are you sure they read it? What about workers who don't read English?

5. What type of accident data, in a business such as yours, do you believe most useful in prevention work? How are you going about collecting this information? How do you insure its reliability?

6. Which of your employees seem to be most accident prone? What special precautionary and educational measures should be considered to bring up their records?

7. How can you translate accident statistics so that they mean the most to your rank-and-file workers?

8. In how many of the reports on accidents in your departments—over, say, the past year—have the accidents been ascribed to “carelessness”? Is this word being used loosely?

9. How would you define the safety responsibilities of your foremen and supervisors?

10. Do you have safety committees made up of workers in your departments? How do you keep their interest alive? Does management act on their suggestions promptly?

11. Which hazards in your departments would you list in a program designed to concentrate on one or two hazards a month?

12. How well would your safety posters stand up if judged by advertising standards? How frequently do you change your safety posters?

13. Can you suggest some good-natured way in which you can “rub in” a group’s poor safety record?

14. Which of your simple, everyday precautions are suggested, rather than compulsory? How frequent, lately, have mishaps occurred that involved this class of prevention work? Have you tried making *all* such precautions compulsory at *all* times?

15. Which of your safety instructions are interfering with the operator’s motion path? Are such instructions often disregarded?

16. On which of your operations could you, by changes in equipment or methods, make safety measures entirely automatic, beyond the initiative of the workers?

17. What method are you using to encourage safety suggestions by workers?

18. What procedure do you follow in investigating the causes of every accident?

19. In your type of organization, would it be feasible to set up a "court" of workers to "try" fellow employees guilty of violating safety rules?

20. How can you emphasize to your workers the need of carrying on safety-first thinking after the whistle blows?

21. What items would you include in a list of all the "little things" that are important in safety in your type of operations?

CHAPTER VII

PAYING PEOPLE

Employees, like owners and managers, are admittedly in business to make money—and although there seems to be a growing realization on the part of management that the financial motive is not always the worker's most important driving force, it is still the one point at which he can focus his relationships with his employer. That is why organizers can so readily win followers on the issue of wages when, as far as the individual worker is concerned, there is a host of other, less tangible, factors in his dissatisfaction.

Undoubtedly, one of the most important developments to come out of management's current preoccupation with labor problems is the new emphasis placed today upon job classification and rating, and merit rating. The principle, of course, is not new; it is the organized, scientific application of it that is of present significance. It is discussed at practically every meeting of production or personnel executives, and impressive work in developing methods of applying it in wage administration in specific industries is being done by trade associations.

By carefully defining, classifying, and ranking all occupations (for example, by giving weighted

consideration to such things as the education and experience required on the job, the responsibility borne by the man on the job, the effort required to do the work, and the physical conditions under which the work is done) and setting a fair range of pay for each, managements of many companies are accomplishing two important results: They are avoiding pay-roll wastes by putting their labor costs on a sound basis; and they are proving to their workers that rates of pay are not determined by arbitrary and capricious methods, but are built up on a foundation of fact and justice. Industrial psychologists are agreed that workers are as keenly interested in the way their pay compares with that of others as they are in the absolute amounts of their own pay. Such a plan, therefore, is an important factor in maintaining favorable employee attitude, since it eliminates the all-too-common situation of widely differing compensation for similar kinds of work. Moreover, this scientific approach has been getting not only the approval, but also the active co-operation of enlightened union leaders.

Indeed, it is often a moot question as to whether a worker is as much concerned about the actual amount in his pay envelope as he is in getting more than his less skilled neighbor at the bench. Says one investigator, "In studying employee attitudes, we have found that there are several distinct concepts regarding pay. Two of these we phrase this way—*The company can afford to pay more and should do so,*

and *My pay is not in line with that for other jobs of the same importance and difficulty in the company.* Dissatisfaction on the second of these is much more disastrous to morale than is dissatisfaction on the first."

The National Electrical Manufacturers Association has performed a most comprehensive service for its industry in developing standard definitions for every job in a plant and establishing a procedure for job rating. Its booklet *Job Rating* clearly sets forth the factors to be used in rating jobs for hourly rated occupations. The National Metal Trades Association has also developed a system of job rating for its industry, largely based on the work done by N.E.M.A. The N.E.M.A. work was described in some detail by A. L. Kress at the American Management Association's Industrial Relations Conference in Chicago in February, 1938. (See "Sound Wage Payment Policies." AMA Personnel Series 34). For a comprehensive "Case History in Salary and Wage Administration," see the Atlantic Refining Company's procedure described in *Personnel* for February, 1939.

While merit rating—since it deals with human beings and not with occupations—has not been developed to so precise a degree as job rating, many companies are today basing the individual's compensation (within the band of payment for a given occupation determined by job rating), promotion from one job to another, and layoffs on carefully weighted judgments of worker efficiency, loyalty, ability to get along with people, seniority, and the like. These factors have, of course, always deter-

mined an individual's compensation and promotion. The significance of the modern development is that management is substituting a system for arriving at a numerical classification by scoring carefully weighted components, for rule-of-thumb and personal recommendations.

A method of compensation known as "measured day work," largely developed by R. H. Rositzke, fixes payments at an hourly rate for a definite period—usually three months. A numerical evaluation is used to determine a worker's increment over base rate, taking into consideration the "intangibles" (such as loyalty, etc.) referred to above. This system aroused quite a lot of interest several years ago—although it involves no new concept as regards fundamentals of merit rating. It is described in *Factory Management and Maintenance* for February, 1937.

The Industrial Relations Committee of the American Iron and Steel Institute presented a thorough report on merit rating to its industry. The main results of its study were published in "Merit Rating for Employees" in *Personnel* for August, 1938.

Merit rating should not be confused with job rating. The latter ranks *jobs* with regard to definite requirements needed in their performance, and sets up fair rates of pay for them, *without reference to the man*; the former ranks *individual workers*.

This whole job-rating and merit-rating movement is, of course, in the general direction of making management's reasons for its methods of wage payments more easily understood by the workers.

Taylor depended entirely upon wage incentives to induce workers to put forth their best efforts. But whereas Taylor insisted that "the average workman must be able to measure what he has accomplished and clearly see his reward at the end of each day if he is to do his best," the development of scientific management brought forth endless permutations and combinations of straight time wages, increments built up on the basis of time saved, and straight piecework. The result often was that, although an incentive plan might prove sound on the basis of the mathematics involved, so that theoretically the worker would be induced to put enough effort into his work to render just the right results, he often had only the vaguest idea as to the relationship between his output and his pay; and worse still, his wage could often not be calculated closer than to within several days of payday.

"I have used physical formulae for years," said a noted English scientist after spending many years in industrial relations research in this country, "but in spite of my best endeavors, I find myself unable to get on easy terms with many actual examples of wage systems." If the scientist is confused, pity the worker!

In *Wage Incentive Methods* (Macmillan, New York, 1936) Charles W. Lytle describes and analyzes 25 basic incentive plans in detail, and discusses numerous variations and modifications.

Another trend should be mentioned in these notes. Two forces have combined to bring to the fore the

"annual wage" and "guaranteed wage." The first is the assumption by management, as indicated elsewhere in this book, of greater social responsibility for its workers; the second is the desire on the part of workers themselves, prompted by all-too-vivid recollections of slack work, layoffs, and dismissals during the depression, for more and more security in their jobs—even at the expense of immediate income.

The important thing is that companies which had previously thought themselves too seasonal or for some other reason unsuited to guaranteeing fixed incomes have of late adopted with success such methods of payment. Better inventory control, product diversification, better co-ordination of production and sales are all helping in this respect.

Specific plans vary considerably, of course—although most of them involve a bookkeeping arrangement under which the workers are debited certain amounts if their regular weekly pay exceeds an amount warranted by actual production, and are credited with amounts when production has entitled them to more than their weekly pay.

At a production conference in Pittsburgh, April, 1938, four companies—a food processor, a storage-battery manufacturer, a pharmaceutical manufacturer, and a manufacturer of spices, condiments, and extracts, reported on their plans. The *Proceedings* (American Management Association Production Series 111) can be consulted with profit by anyone contemplating such a plan.

Six current plans are presented briefly in a two-page article in *Factory Management and Maintenance* for February, 1939, page 43.

The National Industrial Conference Board's bulletin, *Assuring Employment or Income to Wage Earners—A Case Study* (Studies in Personnel Policy, April, 1938), gives details of 12 successful plans in current use.

And now as to motives other than those tied up in the pay envelope. Exhaustive investigations into employee attitudes have developed impressive evidence of strong nonfinancial motives. Of course, reports of such studies always imply or explicitly state that pay conditions were not pronouncedly under community or industry standards when the surveys were undertaken.

For example, it is reported that in one of the largest commercial organizations in the country, among 60 topics, each an important aspect of employee attitude, the likelihood of pay increases from time to time ranked only *ninth* in relative importance for "over-all morale." Studies like these have shown that, in the eyes of the workers, such tangibles as wages and hours and working conditions are not everything—that workers desire psychological satisfactions as well as material satisfactions. Among the former, such things as an opportunity to offer suggestions to management, knowledge that they would get a "square deal" on submitting grievances, an opportunity to become interested in the job, were found to be even more

important in shaping employee attitude than are increases in pay.

Houser gives the accompanying table to show how factors other than pay affect morale, and how much more important than matters involving pay some of

HOW FACTORS OTHER THAN PAY AFFECT MORALE

	<i>Index of Signif- icance</i>
Think they would not be given due credit for good sugges- tions.....	161
Believe suggestions would not be impartially considered..	152
Think they have no good chance of square deal on sub- mitted grievance.....	145
Think they have no chance to know reason for decision on grievance.....	139
Feel they would not be told why suggestions were rejected	132
Think practical suggestions would not be tried out and used.....	126
Do not get reasonable amount of help to improve work..	126
Opportunities for advancement were not explained satis- factorily to them.....	126
Do not feel reasonably free to consult superiors on real problems.....	126
Were not given sufficient information to create interest in new job.....	103
Think insufficient care is taken to have them understand changes.....	103
Think it difficult to have grievances fairly considered....	100
Do not have much of a chance to suggest necessary changes.....	100

them can be. The data were developed by means of carefully worded questionnaires and personal interviews among nonselling employees of a large merchandising organization. The average significance of all the pay items was calculated and assigned the value

of 100. The significance of all other items was then figured in comparison with this value. All the items in the table were either greater than pay in significance or, where they have a value of just 100, equal to it.

As an amusing example of how sentiments other than the actual money become involved in pay, Professor Whitehead cites the following (in *Leadership in a Free Society*): "There are three ways of paying wages in England: (1) Weekly wages are paid to clerks and workmen. (2) Monthly salaries are paid in industry or for minor professional appointments. (3) Quarterly salaries are paid to higher professional men. Naturally, there are many exceptions in practice. However, first-division civil servants are highly regarded by the community and they are paid quarterly salaries. But the pay is by no means excessive, and payment at such infrequent intervals might be inconvenient to the recipients. And so civil servants are paid quarterly, but their pay is advanced to them monthly. This solution is in every respect appropriate to social sentiment, and I have heard it defended by a government accountant on the ground that it simplified the bookkeeping."

Although much of his book is presented in a technically psychological and sociological vein, Professor Whitehead's chapter *The Financial Reward* is intensely interesting and readable even for the nonacademically minded, and is well worth the time of anyone desiring to develop his "background thinking" on the subject of wage incentives and wage payments.

Do Your Employees Really Know Your Remuneration Policies?

The management of a manufacturing company decided to check up on how its employees felt about certain questions, in an effort to arrive at an "attitude rating" for the company as a whole and for individual departments. It was amazed to learn that its wage and salary administration policies were losing effectiveness because the employees were surprisingly ignorant of them.

For example, more than one-half the salaried employees believed that their immediate supervisors would give them pay increases if the higher executives would permit. This indicated that the department managers were not assuming the responsibility for decisions relating to pay, but instead were "passing the buck" to top management.

Although the company had established a plan of salary advancement, more than one-half of the salaried employees indicated that they did not know anything about it.

Approximately one-half of the factory workers were dissatisfied with the wage-incentive plan, suggesting a need for employee participation in the determination of job standards and piece rates.

For more complete information on this attitude checkup, see "Finding Out What Employees Are Thinking" by Harold B. Bergen in the April, 1939, *Management Record* (National Industrial Conference Board, New York). A review of this article will be

found in the section, "Improving Management-worker Understanding," page 221.

Salaries in "Glass Houses"

A business consultant who has specialized in the office field believes that too much misinformation is current in most companies about salaries. He believes that, after a clerk has had two years of service, the classification of every job and its salary limits should be available to him if he is inquisitive enough to ask to see them. In this consultant's opinion, such a practice prevents the circulation of wrong information and is worth while even if it might take some time to explain why certain salaries are fair. The attitude that what the company pays is none of the clerk's business does not, he claims, build morale. It should be considered definitely the clerk's business to secure employment where salaries are fair.

He'd Post Actual Wages.—The superintendent of an Eastern factory making dental equipment would go this consultant "one better." He has long advocated posting actual wages and salaries—not merely a compensation *range*—for every employee. He admits that the great difficulty would be in the tremendous stir such a procedure would create at the start. But he definitely feels that, once the initial shock is over, the publicity would be a tremendous force for stirring men on to be worth as much as someone in a higher bracket. "If a company is so very afraid of letting people know all the salaries and wages," he claims, "I always suspect the reason is that they're not sure they can

justify them. My plan would, of course, demand a job evaluation program before any publicity. Then, if some man complained that John Jones was getting more than he, and wanted to know why, you could explain just what additional responsibilities, skill, and other factors John Jones's job called for—and you could also point out some of the complainer's own limitations that would have to be overcome if he wanted more pay."

Asking "Why?" on Overtime

After the enactment of the wages and hours law, the controller of a company with large office operations told the office manager that more careful records of office overtime would have to be kept. This request led to a checkup which showed that the extent of overtime required by the various office department heads had never been fully appreciated.

A ruling was made that everyone who authorized overtime work had to make out a written form, explaining why the extra time was necessary, the number of people that would be involved, and approximately how long they would have to work. Since the new regulation required that overtime would be paid for, the department head had to estimate the cost of this additional work—a cost that would be charged to his department. Finally, authorization would have to be obtained from a ranking executive.

The mere requirement of such formalities brought about an immediate reduction in overtime work.

The department heads, now that their requirements would be a matter of record, with the cost charged against them, thought twice before making an overtime request.

How They "Sell" Time Study to Employees

A rubber company attributes its success in "selling" time-study and incentive plans to its employees (who are highly organized) to the care with which it handles the human problems involved.

For example, before a time-study program is introduced, the ranking foreman gets in touch with the labor representative and other workmen who are held in high regard by the department. This contact is merely to inform the working group that a survey is to be made, and to answer all questions.

Before actually accumulating data, a time-study man spends a lot of time in the department, talking to the foreman in charge, inspecting jobs, and being observed—all to win the confidence of the men. During the time studies, each workman is encouraged to talk about his job and its difficulties. This sympathetic attitude goes a long way in building an attitude of trust.

After the data have been gone over with the foreman, the proposed standards are discussed with the labor representative. The foreman does the talking here, with the time-study man acting merely as a "consultant." The purpose of this discussion is to make sure that all elements of the job are included in the standards. Time values are not discussed, thus saving argument.

No attempt is made to have the representative and other workmen approve the standards or say they are in favor of them. The idea is merely to inform them of progress to date.

The workmen then start on a trial of the incentive plan. Foremen and time-study men do all they can to assist and encourage them. As one means of encouragement, a daily report is made to each worker, showing him how much "extra" he made that day.

Incentives Worked Out for Nonproductive Employees

A Middle Western company manufacturing radiators worked out a bonus plan for truckers and sweepers. Moves to and from machines are now made much more promptly. There often used to be a shortage of containers for products and scrap; now there are plenty available when needed.

Why Standards Required Better Supervision

"We have recently installed wage-incentive systems to cover practically every operation in our plant," says a general superintendent of a machinery manufacturing company. "However, despite the great benefits that I am sure we derived from this move, I must point out a serious problem that came up in connection with it. We found that with men working under self-imposed pressure to earn additional payment, something happened to the fine

touch that had distinguished our highly skilled mechanics.

"For example, an operator working on close limits used to check and recheck the setting of dials. Under the new system he was apt to omit this in order to gain time. *We were able to overcome this difficulty, and maintain our standards of quality, only by patient effort and constant alertness on the part of our foremen.* Of course, we made every effort, with jigs, fixtures, special vice jaws, and the like, to cut down the chance of making errors."

Pick the Time for the Rate Program

"The best time to put a job-rating plan into operation," said the works manager of a foundry and machine company, "is when you contemplate a horizontal wage increase or wage cut. Otherwise, if you're trying to establish it in an old-line company that has set its rates over a period of years, you are bound to have complaints and ill feeling where rates far out of line are adjusted. But at a time of wage increase or cut, you can use the rating data as an acceptable basis for intelligent adjustments."

An Example of "Follow Through" on Job Rating

In a Philadelphia company making electrical instruments, the performance of every employee is reviewed by a committee once every 13 weeks, to see whether a change in his rate of pay should be made. This is a continuous checkup, one-thirteenth

of the employees in each division reviewed each Tuesday. The committee for each department is made up of the factory superintendent, the foreman, and the personnel manager.

The foremen are responsible for keeping track of performance, by following up the efficiency, spoilage, and general usefulness of each worker. All jobs in the plant have been carefully rated, so that the committee's work is to determine where the employee's actual rate should fall within the range set in the schedule for that particular job.

After the meeting, the workers involved are told by their foreman whether their rates have been raised or not, and why. If a worker disagrees with the rate set for him by the Reviewing Committee, he may appeal through his foreman to a joint committee of management and workers.

Every foreman has a book of occupation definitions, with the rate range for each, so that he can answer questions. Every worker has a card showing the name of his occupation or position and the rate range for it, as well as the range for the next higher class of work.

Know Your Compensation Statistics

"Where any method of payment except day work is used," said a man who has spent many years in installing job-rating systems in all parts of the country, "periodic analyses should be made to see what average *hourly* earnings are by jobs, by departments, and by sex. Particular atten-

tion should be given employees on any job who consistently fail to earn the occupational wage. *This group is a potential source of trouble*, and management should find out why they fail to reach the standards.

"Annual earnings should also be analyzed each year. Such a study can readily be made from the individual employee's Social Security record."

Thrift

To encourage thrift among its employees, an ice-cream company in San Francisco pays them an amount equal to interest credited to them on savings accounts deposited out of their current earnings. A present restriction is that deposits subject to this addition are not to exceed \$25 a month or a total of \$600 per employee. Accounts are deposited in the name of the individuals, and are subject to withdrawal at will. Officers of the corporation are not eligible to participate in this scheme.

Bank.—One company has arranged for the setting up of a branch of the local savings bank in one corner of its employees' dance hall. This arrangement was found more satisfactory than having a company thrift plan, because there can be no feeling on the part of the employees that their private affairs are being pried into, or that the company "is trying to get some of its own money back" even temporarily.

Garnishee Evil Cured

The vice-president of a Middle Western rubber company found the following action a complete

cure for the garnishee problem. He laid down the rule that the second day after a man's wages were garnisheed, that man had to lift the garnishment, or else he was off the company's pay roll until he did so.

As is usually the case, he said, there were only one or two businesses in his community that made a practice of hounding workers with garnishee threats. The company's firm policy taught them that dealing with petty debts in a way that levied legal charges of as much as \$7 on a \$15 account wouldn't net them anything if the workers were laid off.

"I found that I didn't lose any friends on the pay roll by taking this position," he said, "but it did require some careful explanation."

Is the Credit Union the Answer?—Credit unions have proved admirable devices for meeting the short-term credit needs of individuals with low incomes. An association of employees to help themselves, a credit union, receives savings from its members and makes loans to its members—as a rule without collateral (up to \$50), but usually on the security of endorsed notes. Under the Federal Credit Union Act of 1934, federal charters for credit unions are granted by the Farm Credit Administration. If you are interested in helping your employees establish a credit union in your organization, write to Farm Credit Administration, Credit Union Section, Washington, D. C. The Director will put you in touch with the proper local authority, who will see to it that full information is

presented to your group, and will help you get the credit union started.

APPLICATION CHECK POINTS

1. How do you think the wages paid by your company compare with your industry generally? With wages for similar types of work in your community?

2. Are you sure your workers really *know* your remuneration policies? How can you be sure your workers are satisfied with, say, the incentive plan in force?

3. What factors other than pay do you think loom large in the eyes of the class of workers under your jurisdiction?

4. What do you think would happen if you were to post, in each department, actual salaries paid to all workers? If you posted a salary range?

5. How do you make department heads justify overtime?

6. Are all jobs in your immediate organization described and classified? What part do your foremen and supervisors play in such a program of classification and rating?

7. What proportion of your workers on incentives understand the working of your wage plan?

8. How can nonproductive workers under your jurisdiction be put on incentives?

9. How do you rate the workers on your jobs? What emphasis do you place on such intangibles as "loyalty," "ability to get along with people," and the like?

10. What do the various classifications of your hourly rated workers average as yearly earnings? What can a business like yours do to guarantee a minimum annual wage?

11. With your type of workers, would there be an advantage in devising some scheme to encourage thrift?

12. Is the garnishee a problem in your immediate organization? Can you suggest a remedy?

CHAPTER VIII

DISMISSING PEOPLE

As the executive quoted in one of the following items put it, dismissal is, indeed, the "capital punishment" of industry. And just as advancing civilization narrows the range of offenses for which that most drastic of all punitive measures is invoked, so advancing industrial enlightenment seeks to delimit the situations under which a verdict of dismissal may be rendered.

As with most advances in industrial human relations, this one had its origin in enlightened selfishness. Management knows that a high rate of labor turnover represents a tangible money loss, and so it has attacked the problem from both ends and the middle—by more careful *selection*, it obviates the necessity of dismissing large numbers of misfits; by more thorough *training*, it makes the most of the human material at hand; and by more cautious and considerate *dismissal policies* it lessens the chances of irresponsible and arbitrary exercise of power by minor executives.

But what began as enlightened selfishness during a period when labor was at a premium has now, when there is a "buyer's market" for labor, developed into a very definite management obligation.

Many forces are conspiring to emphasize this obligation. In the early days of scientific management, when Taylor reiterated the need to build up the working force out of "first-class men," management could with much less compunction eliminate those who did not live up to that specification. For the country was expanding, and if a man was dismissed he could, without too much difficulty, walk down the street or across the railroad tracks and get a job somewhere else. Or, if opportunities in a community were dwindling, there was always open and undeveloped country being exploited, where those conducting lusty new enterprises were eager to employ new hands—and not too many questions asked.

Today, technological displacements, combined with a flattening out of industry's expansion curve, make it difficult indeed for a man dismissed by one company to find employment readily in another. And cyclical swings, when "difficult" becomes "impossible," seem to occur with growing frequency. Public sentiment has, therefore, demanded that management assume a more social attitude toward workers—an attitude that embraces continuity of employment as a direct managerial responsibility. Moreover, organized labor, always unfriendly to technical developments that threaten the *status quo* of its members, has long fought for hedges on management's freedom to dismiss; and—at least, as far as dismissals where labor activity is even remotely suspected as the cause—govern-

ment itself has thrown the weight of its influence in labor's favor.

But, of course, there are times when capital punishment is necessary. Square pegs may sometimes defy rounding; adverse business conditions may make dismissals and layoffs a requisite to survival; the logic of technical advance may ruthlessly demand its price of human displacement. This section seeks to bring together samples of procedures that companies have found workable when the unpleasantness of separation had to be faced.

Dismissal compensation is one way in which management attempts to fulfill its social obligation to workers who must be eliminated. Here, of course, it is difficult to discuss general patterns, since so much depends upon the individual company's situation. However, a pamphlet published in 1937 by the National Industrial Conference Board, New York—"Dismissal Compensation"—will give you an idea of successful procedures. It presents characteristics and technical details of 172 existing dismissal compensation plans.

"I Worry about the Men I've Fired"

"The only things that really end when a man is fired," said a superintendent, "are his work and his wage. He himself goes on—and a definite relationship between him and the company persists, even though he has been sawed off the pay roll.

"In the first place, for a long time to come he'll collar everyone he can get hold of, to chew the story of the events leading to his dismissal over and over again. That story will, naturally, be told from his own point of view, and if the man is 'sore' the company is pretty sure to be pictured as a cold and soulless corporation. And Mrs. Ex-employee as well as the kids will be walking advertisements about the raw deal the old man got.

"All of which means that I worry about the men I've fired more than I do about the men on the pay roll. I want men to be fired in such a way that the company won't be hurt more than is absolutely necessary by their remarks while they're 'at liberty' "

Exit Interview.—To retain, insofar as is humanly possible, the good will of the discharged employee, or the employee who has quit without notice, many companies conduct what is known as the exit interview. Such interviews, if carried on by people skilled in the work, are an important means of discovering departmental conditions, foreman attitudes, misunderstandings, and the like. Proper analysis of such interviews is of great help in reducing labor turnover. A description of successful techniques will be found in a

small brochure published in 1938 by the Policy Holders Service Bureau of the Metropolitan Life Insurance Company, New York, under the title of "The Exit Interview."

Capital Punishment

One employment manager puts the discharge situation this way: *Discharge is the capital punishment of industry.* Before he exercises that measure, he wants to be convinced that it is the only thing to do. He considers it absolutely essential that, in every case of discharge, the foreman, the employment manager, and the division head talk over the facts and agree upon the action to be taken. And here are some other points regarding discharge that he wants to be sure about in his plant:

After discharge has been decided upon, the foreman must be the one to do it. When the employee comes to the employment office for his check-out, no one there must under any circumstances show any resentment. Everyone must be as kind to him when he goes out as when he came in. The chances are that he has to work, has a family to support, and must find a job elsewhere. The least the personnel department can do is to extend sympathy and wish him better luck next time.

The man may be "sore" at the time, but he can't help remembering that the employment manager seemed sincerely sorry that he had been unsuccessful, and he might begin to feel that possibly it was his own fault. He may find himself saying, "There

was nothing for them to do except can me. It was a pretty good place to work. He told me they might take me back some day. I guess I won't go out and howl my head off about that company being a bum place to work."

Make the Change in Time

One coal company sets up a fundamental policy that an unfit employee be transferred or dismissed *before he has been on the job too long.*

Accordingly, a report on every new employee is sent to the personnel department every month for the first three months of his employ. This report covers his performance in safety, co-operation, quality of product, and output, and is made out by his three immediate superiors. A special effort is made to correct any substandards the man might show during those early months.

Reports of this nature about supervisors are sent in every month for the first six months.

After the above initial ratings, every employee is rated once a year.

A Worker Deserves Proper Warnings

A company employing several thousand office workers has laid down the rule that before the personnel department will consider the discharge of a clerk, there must have been several written memoranda to the clerk himself, telling him about his unsatisfactory work or attitude. These warnings must extend over a reasonable period of time.

Dismissal is the Last Resort Here

A company with numerous plants where most of the employees are girls has worked out the following policy regarding dismissals.

The foreman cannot dismiss any of his girls. If he is dissatisfied with one of them, he reports her to the "court of last resort," which usually consists of the foreman's own immediate superior and the superintendent or assistant superintendent of the division. If, after talking the matter over with the foreman, the "court" finds sufficient grounds, it notifies the plant employment manager.

However, this does not mean that the girl is dropped from the pay roll. The girl who has not made good is tried on at least three different kinds of job, and sometimes more, in an effort to fit her in successfully somewhere.

The above procedure makes every girl feel that she will always be treated with justice, and that if there is congenial work for her somewhere in the company, she can have a chance at it.

When there is no other course but to dismiss a girl, the employment manager does the dismissing. Of course, complete records are kept, and if it is found that some particular foreman has an unusual amount of trouble with those under him, the matter is looked into. Habitual dismissers are not wanted as foremen.

A company manufacturing heating equipment boasts that only two of its workmen have ever been fired—

and those for very serious offenses. Under circumstances in which other employers would probably discharge a worker who lacks ability to perform satisfactorily on a given job, this company makes use of a system of "switching"—transferring the employee to other work, *without reduction in wages*, until a suitable job is found.

How a Sudden Need for Layoffs Was Handled

When one large organization was confronted with the necessity of laying off a considerable number of employees in every one of its manufacturing departments, a printed form was prepared for use by every foreman with respect to the men and women under him.

At the top of the card, which the foreman was required to sign, was a place for the date and the employee's name, job, and department. The following questions about the worker were listed, and the foreman had to check "yes" or "no" in back of each one:

1. Does he follow instructions willingly?
2. Is he clean and orderly?
3. Does he take good care of property and materials?
4. Does he work from whistle to whistle?
5. Does he work every day, and when he's going to be absent, does he tell you?
6. Does he work well with others?

On the day the coming layoff was to be announced, the foremen were called into the office in groups,

and the purpose of the form was carefully explained. The point was emphasized that people would be laid off on the strength of the recommendations the foremen indicated by means of the cards.

When the records began coming in, foremen were called in to discuss very intimate details of their conclusions. For example, if the foreman said John Jones didn't "follow instructions willingly," he had to tell how he arrived at that conclusion, and cite examples.

It was significant to note that very soon some foremen asked to get their cards back, so that they could revise their records. The procedure of asking for reasons and examples discouraged the playing of favorites.

"Retention Factor" in Layoffs

During arbitration hearings, a union of electrical workers questioned the methods that had been followed by a certain utility in determining individuals to be laid off. A specific request was made that some definite basis be determined, so that seniority could really be the deciding factor, *provided* (1) knowledge, ability, skill, and efficiency; (2) physical fitness; and (3) family status (number of dependents, etc.) were equal.

Accordingly, a formula was devised by management which attempted to give proper weight to seniority and to the three other items mentioned above. The numerical value of these items was termed a "retention factor."

That fall, when it was necessary to lay off a number of people, those employees with the lowest retention factor were selected.

The management realizes that inasmuch as judgment enters into the allowances made, the above procedure is open to criticism at every point. However, it believes that the use of the retention factor has made every department head much more careful in the selection of individuals to be laid off.

What Information for People Laid Off?

A steel company mails a standard form bearing full information about nature of layoff, how it affects seniority and insurance, etc., to all employees whom it cannot carry longer on the pay roll, and requests that the form be signed and returned. If it is not returned, a duplicate form is mailed in a registered letter with receipt requested.

In 1938 the American Iron and Steel Institute made a survey among 16 steel companies on matters relating to layoffs, termination, discharge, and discipline. It reported that it is general practice with companies that carry employees' group insurance to advise employees at the time of indefinite layoff or termination about conversion privileges. One company mails a registered letter, with request for return receipt, to all employees laid off. Three of the companies instruct employees, at the time of the layoff, termination, or discharge, on how and where to make contact with the State Employment Office to apply for other work and for unemployment insurance. One company even

assists the employee in filling out an application form furnished by the State Employment Office for such use.

What about Technological Dismissals?

In one company operating steel sheet and fabricating plants in a number of cities, as well as a coal mine, an attempt is made, when technological changes occur, to place men affected on satisfactory jobs either in another company plant or with some other organization. If this is impossible, each man is paid a readjustment wage, which consists of half pay for as many months as he has had years of service, to a maximum of six. The minimum readjustment wage is \$50 per month. For example, the man with 6 years of service and monthly earnings of \$200 would receive \$100 per month for 6 months. Should he accept a job within any of the plants of the company and decide within 30 days that he does not desire to continue in it, he would still be eligible for his dismissal wage.

It is, of course, impossible to make any broadly applicable statements about this subject, since every situation is so hedged about with conditions and circumstances peculiar to itself. Many companies have worked out eminently liberal plans, depending, of course, largely upon their resources and the degree to which technological unemployment exists in their operations as a whole. Where technological changes mean the death or crippling of an entire industry, the problem becomes the concern of the state. The above item gives the essentials, briefly, of the "Armco

Plan" in operation in 1935. It is described by Professor C. Canby Balderston, in *Executive Guidance of Industrial Relations* (University of Philadelphia Press, 1935). Incidentally, this book is well worth looking into by those who wish to compare their industrial-relations practices with the practices of outstanding firms in a variety of industries. In carefully reported case studies, Professor Balderston gives the essentials of the industrial-relations procedures of 21 companies.

Protect Yourself with Adequate Discharge Records

Many companies recently have found that it is very important to have adequate records on discharges, for under existing labor legislation, complaints are often filed with the Labor Board some time after the discharge, when incidents leading up to the discharge are no longer fresh, and when, perhaps, some person involved is not available or can be located only with difficulty.

What can management do to protect itself? Here are some important precautionary measures:

1. See that every executive or supervisor who is authorized to make or O.K. a discharge understand that *he* may be called upon to produce evidence and testimony to support his action. One man's word is not enough. There must be others to back up his testimony, or there must be written records. Some companies maintain a card for each employee, and post on it a record of absences or violations of rules. Space is provided for reasons for discharge; statements by the supervisor; a record of who

stated the reason to the employee and who witnessed it; and other pertinent facts. It is important to have not only the immediate reason for the discharge, but also a record of cumulative previous conduct that might have justified discharge.

2. State the reason for the discharge to the employee at the time. A responsible person should be present as a witness. Even where the matter is presented in writing, the discharge should be accompanied by a personal interview if possible.

3. See that no one is discharged for trivial or for purely personal reasons. (If an investigator questions other employees, and finds that some of them have in the past violated the same rules *without* being discharged, or have been equally inefficient without being discharged, he may assume that the discharge was made without sufficient cause, and that union activity was the real reason.)

4. Keep a record of any and all complaints made concerning the employee by his superiors or by customers.

5. Keep a dated record of any warnings given to employees.

Abstracted from "Procedures on Discharge," by William Girdner, National Council of Shoe Retailers, Inc., in *Personnel*, February, 1938, pp. 118-121. Commenting on the inclusion of this item in this collection, James O. Rice, editor of *Personnel*, writes: "It is interesting to recall that Mr. Girdner's article created such a demand for extra copies of the issue in which it appeared that it was necessary to publish it

in reprint form. During the months that followed, one reprint after another had to be issued, until many thousands were distributed.

"From this it may be seen that during that period (February to November, 1938), management was awakening to the importance of the new role played by the *supervisory group* under the Wagner Act, because the great portion of the reprints were placed by companies in the hands of foremen and other supervisors.

"It should be realized that one reason why unions win most of their cases before the Labor Board is that the Board's investigator will usually advise the union to drop the complaint before it reaches a formal hearing if the investigator is convinced that the causes for discharge were just and fair. Unless the management has good records showing how the dismissal came about, it finds itself in a difficult position. Supervisory employees being intimately acquainted with discharge cases can often give the facts better than anyone else, but a record of their statement should be made at the time the dismissal occurs."

APPLICATION CHECK POINTS

1. What do you judge the labor turnover of your company to be? How does the labor turnover of your immediate organization compare with this? How do both compare with that of your industry?
2. What procedure do you follow to retain as much as possible of the good will of a worker you have been

forced to dismiss? What points should be stressed in an "exit interview"?

3. Under your organizational setup, who is the logical person to inform a worker of his discharge? How do you guard against arbitrary or irresponsible exercise of the dismissal power? How do your various foremen compare in records of dismissal? What course of action would you recommend in the case of a habitual dismitter?

4. What do you consider a fair probationary period for various types of work under your jurisdiction? Do you conceive that management of your company has a moral obligation to try every means possible to retain a man if it did not decide early in his employ that he would not be suitable on the job for which he was accepted?

5. If one of your workers cannot perform satisfactorily on the job for which he was hired and you transfer him to a lower paid job, do you think you would be justified in reducing his wage accordingly?

6. How many and what kind of warnings about unsatisfactory work do you believe a worker is entitled to before dismissal?

7. What sort of "court of appeal" does a worker in your departments have if his supervisor wants to eliminate him?

8. If you were confronted with the necessity of a sudden, drastic layoff, how would you go about choosing the ones to be laid off? How would you get the foremen and department heads to give you unbiased help?

9. What type of information do you give to workers who are laid off or dismissed?

10. In what operations under your jurisdiction are there likely to be technological dismissals? Does your company have a policy of lessening the blow on a worker? What steps would you suggest?

11. What type of discharge records are you keeping to protect yourself in the event of complaints before the Labor Board? Do your foremen and supervisors realize the importance of adequate information on discharges? Do you get records and statements from your supervisory forces *at the time of discharge*?

CHAPTER IX

IMPROVING MANAGEMENT-EMPLOYEE UNDERSTANDING

It is fitting that this collection of ideas about men at work should end on the note of improving the understanding between manager and worker groups. We have recently gone through a period of exceptionally bitter management-labor readjustments. But what has impressed me most is that during the height of these difficulties the sentiment expressed at national management gatherings was essentially fair, open-minded, and liberal. At such meetings I have often said to myself that no labor leader, no matter how rabid, could find fault with the philosophies expressed. It appears that when managements get together to discuss their labor problems among themselves—especially when they are assured that their deliberations are ‘off the record’!—their sentiments turn out to be astoundingly un-Tory, astoundingly progressive and liberal. I am convinced that management in this country is reasonably altruistic, and not wedded with single purpose to the profit motive, without regard for the human beings who make the profit possible.

Accordingly, making reasonable allowances for conflicts of interest that do arise, I believe that

where friction exists it is largely there because management has not been able to make its intentions and motives clear to its workers.

As one means of improving management-worker understanding, a number of large corporations have in recent years taken to issuing special financial reports for employees, showing them where the money for the pay envelope comes from and how the corporate income is split up among owners, managers, and workers. The method has been to give a picture of the company's operations to people who are not used to reading the technical accounting language contained in stockholders' reports. Financial results are described in simple language under such headings as "Where we get our money," "Where our money is spent," "How our money is invested," "What share of our money goes to workers," and the like.

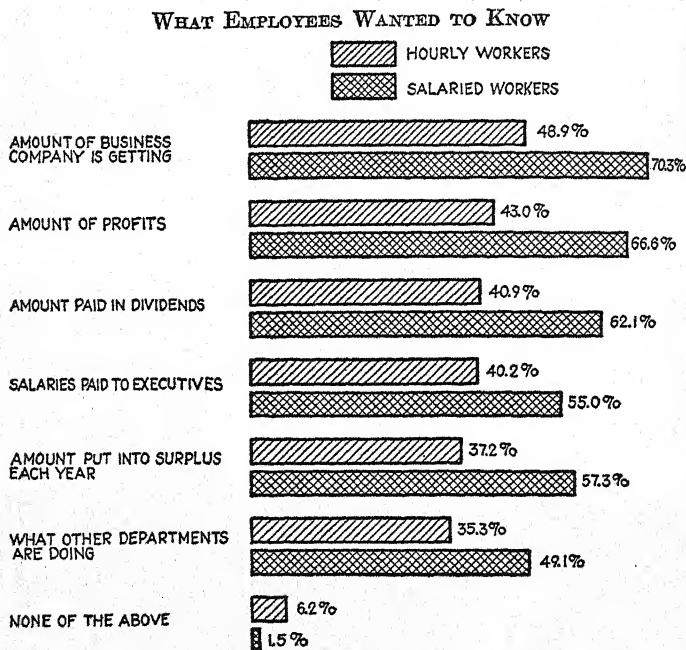
Like all good things, this idea can be overdone, or, if done hastily, can miss its point. Some of the early, very excellent ones were the reports for employees prepared by the Johns-Manville Company, the Jewel Tea Company, and Monsanto Chemical Company. But some industrial-relations men have complained that there has been a tendency to "rush into print" with reports of this sort merely because of the favorable publicity received by the early ones. Thus, the advertising departments of some companies, they say, have "short-circuited" the industrial-relations departments and have issued elaborate, gorgeously printed booklets that were not well thought through from a personnel standpoint.

In a closed meeting held by the American Management Association in New York City in July, 1938, when the "fad" of issuing reports was at its height, Frank Rising, Management and Labor Editor of *Business Week*, warned his audience against such pitfalls as "too much 'writing down' as an insult to employee intelligence," "trying to kid employees by lumping executive salaries and wages," "selling paternalism," and the like. His remarks were later expanded and published as an article in *Personnel* for August, 1938—"Financial Reports and Employees Periodicals."

Making the Annual Report Speak for Industry, compiled by the National Association of Manufacturers (McGraw, New York, 1938), gives excellent examples of reports to stockholders and to employees. With an 8½- by 11-inch page size, and printed on coated stock, it is profusely illustrated with facsimiles of the reports described. The book was prepared after an analysis of some 2,000 annual reports. Although it is based primarily on the experience of large companies, it should be of service to smaller organizations as well.

In a study among more than 1,000 employees in a manufacturing plant (reported upon in the April, 1939, *Management Record* of the National Industrial Conference Board, New York—"Finding Out What Employees Are Thinking"), Harold B. Bergen found that more than one-half of the salaried workers and one-quarter of the hourly workers thought the annual report of the management to employees a "good idea." Only a small percentage remembered the company profit per dollar of sales. This suggested that merely publishing important information is not employee

education. What is needed is a careful follow-up and checking of the information imparted. The accompanying chart shows the information about the company that was interesting to the employees.



One other important trend must be mentioned here. Many companies are today making a sincere effort to determine employee attitudes on all sorts of basic questions, as a logical precursor to getting management ideas across to employees. The new development is the use of tested statistical and psychological techniques to determine the signifi-

cance of information on specific questions furnished by employees. Carefully worded questionnaires, to be filled in anonymously, and personal interviews are methods being employed with increasing skill. Proved methods of sampling make it possible to get reliable data by analysis of questionnaires from relatively small, but representative, groups.

In the notes on compensation I have indicated the work of J. David Houser in this connection. His book, *What People Want from Business*, sets forth his thinking and methods. Although many of the data in this book were obtained from studies made in merchandising organizations, the techniques described are, of course, applicable to any groups.

I have already mentioned Mr. Houser's basic human-relations conclusions—and Part One of his book, which he devotes to formulating these conclusions, is worth reading for its value in helping one think through to a sound industrial-relations philosophy alone, quite apart from the study of statistical method.

Part Two of the book is devoted to determination of consumer attitudes.

The mathematically minded will find it more satisfying to read Chap. XVIII first, for there Mr. Houser outlines the statistical method that enabled him to make his important contributions to the problem of determining attitudes. Anyone contemplating questioning employee or buying groups will avoid many common mistakes by studying this procedure carefully—for Mr. Houser shows how one can find not

only answers to specific questions, but also the *relative significance* of the answerers' attitudes on those questions; and he shows the pitfalls created by mere numerical checks on questions without such a "second-dimensional" analysis of significance.

Results of the Houser technique applied in a large industrial organization are described by Dr. E. B. Roberts in "Tests to Determine Objectively the Effectiveness of an Industrial Relations Program" (American Management Association Office Management Series 84, 1938).

Many practical points about this problem of determining employee attitudes are given in Vol. 1, No. 1 of *Industrial Commentaries*, a 35-page booklet edited by Norman S. Fregger (published by Industrial Commentaries, Chicago, 1939). It discusses plans used by the National Association of Manufacturers, *Fortune*, and a number of companies and points out pitfalls to be avoided.

The "Open-door Policy" Isn't Enough

"I'm getting tired of hearing employers boast about the fact that their door is always open to any employee," remarked a former regional director of NLRB, a man who had been unusually successful in mediating labor difficulties. "No sales executive says: 'My door is always open; if anyone wants to buy my product, he can walk in and be assured that his order will be gratefully received.' He either contacts the customer himself, or sends a reliable salesman to represent him.

"Today, and for a long time to come, businessmen are going to face just as keen competition for the good will of their employees as for the products of their plants. The employer who successfully weathers the labor storms must take time out of his office to make frequent and actual contact with his men—or, if his is a large corporation, he must see to it that someone in authority makes such contact.

"Remember—labor organizers have proved themselves to be pretty successful salesmen."

This Kind of Lubrication Eases Friction

Because of increasing labor difficulties in its area, a company in California decided to set up a special school for its employees, to give them a background in labor relations, labor economics, and the like, and especially, to make them familiar with problems that come up in bargaining for a union contract.

To drive home lessons in connection with this last point, mock collective-bargaining proceedings are conducted. One half of the class represents the union, and the other half represents the employer. To get across both points of view, the "union representatives" later switch to the other side of the table and become "employers," while the former "employers" become "representatives."

The course is conducted with the co-operation of the state department of education and the federal government. No company officials are present at classes, and only union members are admitted.

These Bosses Went Back to the Factory

"For years the executive offices of our company were in New York City," said a prominent industrialist in the heavy-industry field. "They were there for the excellent reason that New York offers large advantages for selling.

"But because we were so far from our factories—the nearest one was in Philadelphia—it was difficult for us to sense the temper of our employees, to 'have the feel' of what they were thinking about.

"And our employees, quite naturally, had the usual feeling about 'absentee ownership.'

"Since we have moved our executive offices back to the Philadelphia factory, we have been in a better position to understand our employees' problems and points of view. Certainly we are better able to give our employees an understanding of management problems."

Just What Should Be Put in Writing?

We're hearing a lot these days about the advantages of putting labor policies in writing, and either posting them on bulletin boards where everyone can see them, or distributing copies to every worker. In that way, there can't be any argument as to where the company management stands and what the employee's rights and privileges are.

What should such written policies include? By comparing the written policies of companies that seem to be successful in their labor relations, *Factory Management and Maintenance* decided that the following 13 points are essential, and should be included in some way:

1. *Introduction.*—Brief history of the company, description of present status, and a statement of what the company has done for its employees.

2. *Co-operation.*—Employee's and management's mutual interests.

3. *Selection and placement.*

4. *Conditions of employment.*—Wages, method of wage payments, hours, layoff procedure, discharge, rehiring, and the like.

5. *Collective bargaining.*

6. *Grievances.*

7. *Social security.*

8. *Safety and accident compensation.*

9. *Insurance, saving plans, loans.*

10. *Training.*

11. *Relief.*—In case of sickness, and the like.

12. *Health*.—Working conditions.

13. *Community relationships of employees and company*.

For development of these ideas see *Factory Management and Maintenance*, February, 1938.

Putting "Zip" into Published Policies

As one means of getting its labor policies across and keeping in touch with its employees, a California company gets out two pages of informative material weekly.

"But this literature isn't worth a dime to us," says the management, "if our employees don't read it. That's why we go about it just as if it were a professional publishing job, competing for reader attention with *The Saturday Evening Post*, *Liberty*, and the rest."

Modern methods of advertising and publicity are used. Experts select the art, photography, layout, and color. The copy is brief, informative, and interesting.

To make still more certain that as many as possible of its employees read the material, a short questionnaire is a regular feature. Employees can answer it only by studying the pages. Their answers can be submitted for more than 200 prizes in a weekly contest.

"It's against Company Policy"

"I've called all you boys together this morning," a superintendent told his foremen at a special meet-

ing, "because I want to get something off my chest.

"From now on I'm going to outlaw a certain expression that is too often used by foremen and supervisors as a short-cut answer to a suggestion or request brought by one of their men. This expression is a lazy man's device to avoid using his head in clearing up a legitimate question.

"From now on, don't ever let me hear of any of you answering an employee by saying, '*It's against company policy.*'

"If something is against policy, there must be a good reason, and if you're worth your salt, nine times out of ten you should know the reason. *Tell it!*

"If you don't know the reason, tell him you don't know, but that you'll find out for him, and that you'll come back at him with it in short order."

Clear as Mud!

Are your written orders clear? A good rule to remember is to try to put only one fact in each sentence. For example:

1. "Office and factory departments will close for the holiday period on Friday at 12:00 noon and 1:00 P.M. respectively and open on Tuesday at 8:30 A.M. and 8:00 A.M. respectively."

2. "Owing to the holiday period, the Company offices will close on Friday at noon. Offices will be opened on Tuesday at 8:30 A.M. Factory

departments will close on Friday at 1:00 P.M. They will be opened on Tuesday at 8:00 A.M."

Quoted from *The Technique of Executive Control*, by Erwin H. Schell.

Heart-to-heart Talks Do the Trick Here

A clothing manufacturer with a plant employing slightly under 1,000 people has long followed the practice of talking to individual employees about company matters. He admits that heart-to-heart talks may be out of the question for corporations employing tens of thousands of people—but he knows that the scheme works for him.

In a crisis, where a layoff or a salary cut is a likely development, it has been his experience that explaining the situation to each man, though it requires a lot of time, saves trouble and misunderstanding and makes it difficult for an agitator to gain a foothold.

It Works Even Where Companies Are Large.—This matter of "heart-to-heart talks" was discussed with the factory manager of an automobile-body plant.

"It can be made to work in large companies, too," was his comment, "if you go about it right.

"We've been hearing a lot about the Gallup method of polling public opinion . . . Well, I apply the same technique to this business of talking with my employees.

"I'm familiar enough with the make-up of every large department or division in our works to be able to pick out 20 or 30 people to talk to in an intimate,

informal way when I want to get something across to the whole force. A little practice soon develops a surprising knack in picking *representative groups* out of large numbers of people. This method—in addition, of course, to our regular, published material—has been very successful in telling our people what we're thinking about and planning."

How an Air-lines Executive Tackled the Same Problem.—The president of an air-lines company stated that he spends one-third of his time talking with his employees. Watchmen and clerks receive the same attention as pilots. Fortunately, the business he's in makes it easy for him to get around—and so he makes it a point to chat with every one of his 2,000 employees at least once a year.

Employees Were Asked to "Shoot the Works"

An Eastern company making floor coverings calculated that the work it was doing for its employees, exclusive of Social Security and unemployment compensation to federal and state government, was costing 10 per cent of the pay-roll bill. Did the employees benefiting from these plans appreciate them? Did they really understand them?

Management thought the answer was "yes," but decided to find out by asking the employees themselves.

A questionnaire booklet was prepared, listing seven things that management assumed every worker wanted out of his job. These covered job security, fair compensation, good working condi-

tions, pride in company policies, reasonable working hours, opportunity to express opinions about what the company was doing, and provisions for sickness, accident, death, and old age. In carefully chosen language, the company explained what it was doing about each of these, and invited comments and suggestions from the employees. This comment was made easy by pertinent questions which could be answered by "yes" or "no."

The final pages of the booklet were devoted to an account of the company's progress and its future. A feature was a special section called "Shoot the Works" in which an employee could get any pet peeve off his chest. Care was taken to make the booklet throughout attractive and easy to read, and many of the points were illustrated by cartoons.

It was emphasized that the employees did not have to sign the questionnaire; and to make returning it easier, an addressed, postage-paid envelope was included.

Replies began arriving within 2 days. Approximately one in seven was returned, which, in view of the fact that no pressure whatsoever was exerted, was considered satisfactory. More than 82 per cent of the replies contained written comments.

The replies showed that many employees did not understand certain phases of the company's employment-relations program. These were explained.

This is the plan of the Armstrong Cork Company. See American Management Association Production Series No. 109 (1939), and *Personnel*, August, 1939, for articles by J. J. Evans, Jr.

Personnel Counseling

In Chicago an electrical manufacturing plant with many thousands of employees uses an elaborate system to iron out difficulties in human relationships. It terms this procedure "personnel counseling."

Skilled interviewers are placed in the various shop departments. They spend their days right in the shop, in close contact with workers and supervisors. The service is not, however, forced upon a department. Each interviewer is introduced to one of the higher ranking supervisors, who, if he feels that he would like to have the program in his organization, introduces the interviewer to supervisors under him.

The interviewer spends considerable time getting acquainted with the people in the department and finding out about its special human problems. As soon as he feels that he has a fairly good knowledge of the situation, he begins interviewing. Each employee goes to an interviewing room, away from the department. There is no fixed time limit to the interviews, but they average about one hour each. The employee is, of course, paid his average earnings during the time spent in this way.

It is emphasized that the interviewer is equipped for his work by special training and knowledge. He begins by putting the employee at his ease, by being at ease himself, and by explaining the program to him. He tells the employee that he wants to become acquainted, and that the employee is free to tell him anything he wishes. The worker

is assured that everything will be strictly confidential, *and these confidences are strictly observed.*

Nothing the employee may say will shock the interviewer, who never interrupts him while he is talking. Although the worker may say the most fantastic things, the interviewer never argues, and *never gives advice.* The interviewer is there to try to determine two things: (1) How does the employee feel and think; and (2) Why does he feel and think as he does?

The interviewer is quite as much interested in satisfied employees as in unsatisfied ones. If a worker appears quite satisfied, the interviewer wants to find out how he is regarded by his supervisors and co-workers. If it happens that the foreman does not think too well of the man, there is a problem to look into.

If the employee is dissatisfied, the interviewer's main effort is to spot the origin of the dissatisfaction. This may turn out to be in the worker's home situation, or in his past personal life, or in his relations with other employees, or because of misunderstanding between management and employees.

Management of the company states that the whole success of the plan is that after the interviewer has found out all these things, *he actually does nothing!* It is claimed that whatever corrective action takes place comes about through the increased understanding which the various people involved derive through the interview process—through the thinking and self-help stimulated by the questions.

The degree to which personnel counseling has been carried here is, of course, a luxury that not every company can afford. However, perhaps elements of this idea can be more broadly applied. It is useful, even if an employer decides to try some of the interviewing himself, or to have some of his executives do it, rather than hire trained social investigators. For further information on the above item, see "Employee Education and Counseling Programs," by W. J. Dickson, in the American Management Association's Personnel Series 35 (1938)—*Understanding and Training Employees*. This was some of the work that grew out of the Western Electric Experiments (see page 132).

This Boss Invites the Whole Plant to Dinner

Once a year the president of the X Company visits each of his plants, hires a suitable meeting place, and invites not only his employees, but also their wives and children to dinner.

Thus all these people with a common interest in the welfare of the plant sit down and eat a meal together, and then the president gets up and tells them what has happened during the past 12 months that might affect their plant and their jobs.

"Open House" on a Human, Personal Plane

In one large Middle Western company, the "open house" is conducted on an especially human, personal plane. Invitations are given by each employee of a certain department for a certain day. The wife and family come to look at the whole plant,

but spend a half hour in the department of the husband or father. This is the way the scene is described in *Management Record* for March, 1939:

"An eight-year old, wide-eyed, standing close to a machine, listening and watching, while the father leaned over his work and explained the job to his son—a mother looking proudly on while a boy of nineteen or twenty did his job and rather self-consciously explained it—a couple of twenty-three or twenty-four joking together as he showed her how it was done—wives being introduced across machines—babies being compared—a burly mechanic with a seven weeks' old child in his arms saying to his foreman: 'Here's the youngster, Mac!'—the foreman grinning and saying 'I never knew what swell families these guys had. I never met so many people—it's swell—these are great guys'"

Making the Most out of Bulletin Boards

"We have spent a lot of time and money on our plant bulletin-board system," said the personnel director of a glass plant. "We consider those bulletin boards an invaluable help in getting management information across to our employees.

"We're proud of the way our boards look. They're painted in bright colors, and are kept spick-and-span. We service them regularly, every three days, so that material on them never gets stale.

"As one means of creating 'reader interest' in the bulletin boards, we take candid camera shots of

employees all over the plant, and post enlargements, with suitable good-humored captions.

"Changes in plant policy are decided at plant managers' meetings. Special, carefully worded statements are prepared for all departmental bulletin boards. Each department head is given a full, clearly written *background statement*, explaining the new policy or change in existing policy, with special emphasis on how it will affect his men. These background statements are filed in a book in the foreman's office, the latest one always on top. The book is placed where anyone can look at it at any time.

"The fact that these books are well thumbed indicates that the men are always going back to them to clear up points about statements made in the past, but not remembered in the same way by everybody."

" . . . *But Speaking of Bulletin Boards.*"—The man in charge of industrial relations for a large farm-equipment manufacturing company in Chicago pointed out that bulletin boards may seem simple, innocent affairs, but that their haphazard use can often lead to serious grievances—especially in these days of rival labor organizers.

After some sad experiences with charges of discrimination, he now permits nothing whatsoever to go on departmental bulletin boards except strictly departmental matters.

Special bulletin boards are provided at key spots in the plant for the posting of labor organization meeting

notices and the like. This material is posted under a locked glass, and management passes on what shall go on the boards. Absolute impartiality is observed with respect to requests of rival labor organizations. If a certain type of notice seems to give one side "a break," the industrial-relations manager is always careful to explain that the notice will first be shown to the other organization, and that the other will be given the same opportunity.

"We Keep 'em on the List"

"We mail our company magazine to our people's homes," said the industrial-relations man of a large unit in the motor industry, "for what we consider a number of excellent reasons. In the first place, we think we get better attention in that way, and secondly, we try to make the reading material of interest to the employee's wife and family as well as to himself.

"And here is something we consider especially important—we're in no hurry to take a man's name off the list. We keep right on sending the magazine to those who have been laid off, as well as to those still on the pay roll. We want to keep their good will and their interest in the company."

A Simple Way to Keep Office People Posted

The experience of many companies shows that it's not always necessary to go to a lot of expensive printing and art work in order to keep employees posted on company affairs. For example, every morning the office employees of a large oil company

in Kansas City find on their desks a copy of a bulletin called *The Office Bugle*. It is a simple, single sheet, mimeographed, prepared at minimum expense. It reports latest office activities, news, and announcements. Each copy is dated and numbered in consecutive order, and copies are filed by number. The *Bugle* has proved itself a splendid medium for announcing such items as changes in closing and opening hours, holidays, time off, and personnel changes.

Employees "in the Know"

A Philadelphia company making electrical instruments goes to unusual lengths in informing its supervisors and workers of the state of its business. Monthly figures of orders, shipments, and unfilled orders, together with comparisons with budget estimates, are posted in chart form on bulletin boards in the company cafeteria and near the plant entrance. Absolute figures, as well as percentages and trends, are shown.

Dramatizing the Story Turned the Trick

Ordway Tead (in *The Art of Leadership*) tells of a personnel manager of a small factory who was asked by his management to install a group-insurance policy. At least 75 per cent of the workers had to agree to a small contribution deducted from their pay each week. A lump-sum death benefit would be paid, as well as weekly compensation in case of illness.

To get the workers' approval, the personnel manager inserted a mimeographed ballot in the pay envelopes, together with a brief letter explaining the proposal. Only 48 per cent voted "yes"—most of these being workers over thirty-five years of age.

At the suggestion of the insurance company, the personnel manager then went into each department and called the men together, to present the plan face to face, and to answer any questions.

But his clinching argument was a copy of a thousand-dollar check recently made out to a widow of a worker in a neighboring plant where a similar plan was in effect. The drama of this appeal was especially effective, because many of the workers had known the man who died. Over 95 per cent signed up.

"What My Company Means to Me"

An internationally known chemical company had long been issuing literature describing its honorable history and emphasizing its impressive list of achievements. However, one executive felt that the story of the company and what it stood for was getting to be taken too much for granted. He felt that new and more personal interest in the whole subject should be stimulated.

Accordingly, an essay contest with suitable prizes was announced for all plants and divisions. The title under which an essay was to be submitted was "What My Company Means to Me."

At first there was some doubt as to whether much response would be aroused. But before the

deadline for entries, over 80 per cent of the employees had submitted contributions. Prize-winning essays were published in the company magazine. Much of the material submitted was of real value as "new slants" for the company's advertising and public-relations departments. But, most important, the contest re-awakened a personal interest in the company on the part of employees.

APPLICATION CHECK POINTS

1. Does your company sponsor training courses that give information on labor problems? What type of help in such work is available through your state department of education?
2. Are the chief executive offices of your company far removed from your plant or division? If so, how would you suggest that top executives keep in closer touch with the rank-and-file workers?
3. For your class of workers, what labor policies do you think your company should put in writing?
4. How "readable" is the informative material your management issues to workers? How do you check as to whether workers really read it?
5. When was the last time you dismissed a subordinate's question with "It's against company policy"? Can you cite a circumstance under which such a reply would be adequate?
6. How clear do you believe your written "general orders" are to the average worker?

7. Do you believe top executives in your company should do more direct talking to workers? If the working force is large, how would you go about selecting representative groups to assure maximum effect of such contacts?

8. What sort of information would it be valuable for your company to seek directly from the workers? How would you assure reliability of returns? Maximum number of replies?

9. Would an organized personnel counseling program be of value in your immediate organization? Do you believe outside interviewers should be employed for such an activity? Do you think such a procedure is going too far in "coddling" workers? How would you assure yourself that the interviewers are objective?

10. What do you think an "open house" would accomplish in your industrial community? How serious might the loss in productive time be? Do you think it would be effective after ordinary business hours?

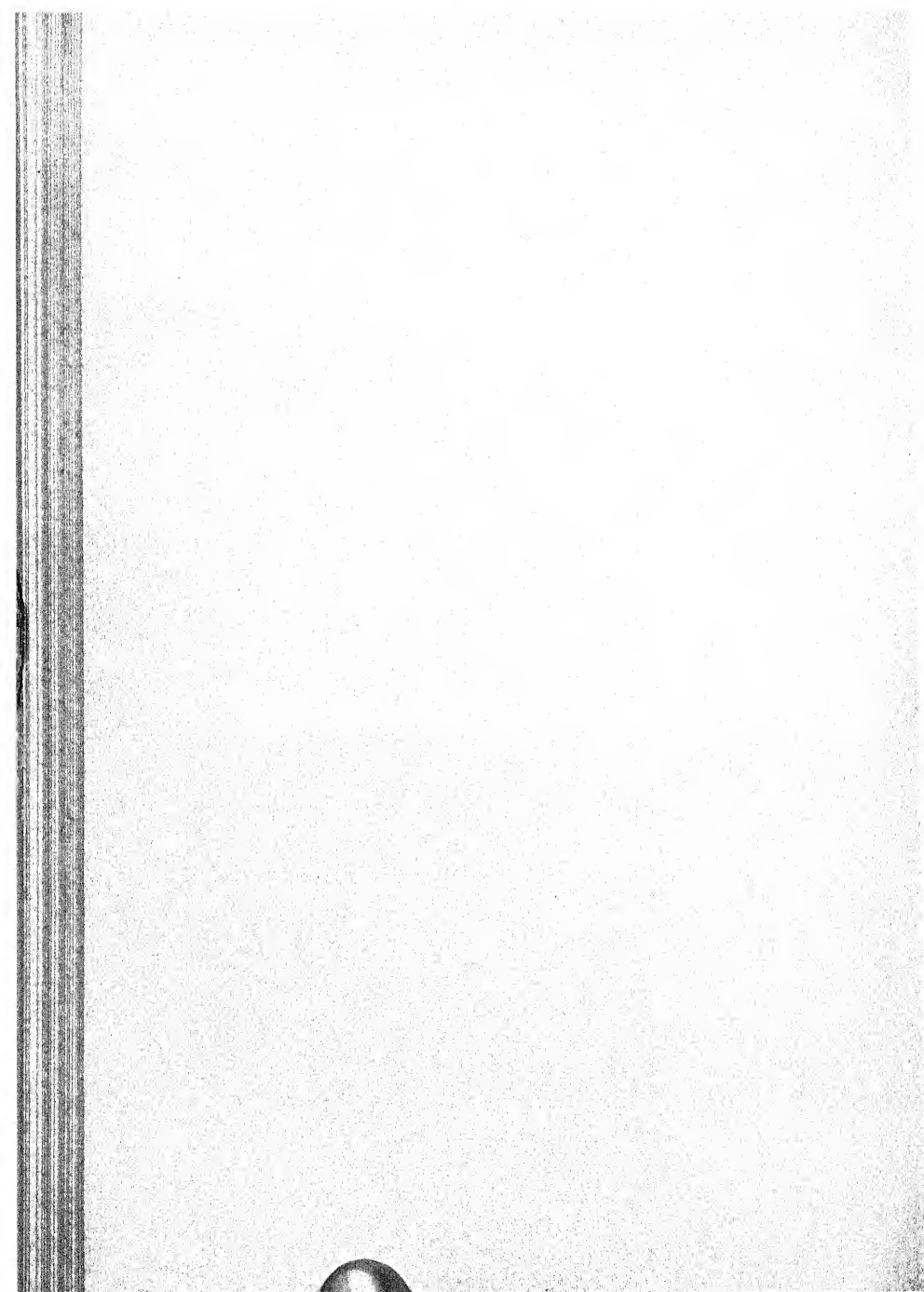
11. How are you assuring maximum effectiveness of your bulletin boards? What supplementary information about material on the bulletin boards should be given to foremen and department heads? How often do you change the bulletin-board material? How can you personalize the bulletin-board messages? How would you handle requests by rival labor organizations for permission to display notices on bulletin boards?

12. Just how interesting is your company magazine? Is it someone's full-time responsibility? Do you think your workers would rather have it sent to their homes

than receive it at the plant? Have you ever checked directly with your workers as to what they really want in the way of a publication? How soon after a man is laid off does his name come off your mailing list for the magazine?

13. How much cost information and information relative to the state of your business do you furnish your workers? How much misinformation on these points do you think is current? Would your workers be interested in a special balance sheet prepared for them? How would you translate accounting language into their everyday speech?

14. What type of contest or other special feature would dramatize the prestige and worth of your company in the eyes of your workers?



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